Mitsubishi Graphic Operation Terminal

Simply the best est!

GRAPHIC OPERATION TERMINAL

GOT1000

It's not a mere display. It's a GOT.

Mitsubishi Electric Corporation Nagoya Works and Himeji Works are factories certified for ISO14001 (standards for environmental management systems) and ISO9001 (standards for quality assurance management systems).

ISO 14001 JACO EC97J1113 UKAS ENVIRONMENTAL MANAGEMENT 051

BVQI ISO 9001 UKAS QUALITY MANAGEMENT 008

MELFANS web
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http://www.MitsubishiElectric.co.jp/english/

It's what we do. Coming up with answers. Breaking new ground.
And now it's here-the GOT1000-reflecting the next generation's vision.

Its beauty alone, its functionality alone, takes the GOT1000 beyond a mere "display". But what really sets it apart is the usability that was inspired by voices from actual worksites.

How far can a display evolve when functions are inspired by the voices of actual users, rather than a race for that "new look"?
To answer this question, Mitsubishi drew on its technology and experience cultivated at actual FA worksites, and the resulting GOT1000 sets the standard for the next generation.
In addition to raising the level of display basics such as response, display, and connectivity, the GOT1000 is packed with ideas and functions designed to improve productivity and workability.
In short, the GOT1000 is about usability, and creating new value.
The GOT1000 not only gives customers improved connectivity to PLCs and a host of other FA devices, it provides a powerful competitive edge in the global market as well.

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Toward a unique GOT brand

The needs expressed by users will continue to be a central part of the GOT series evolution to the next-generation display. Mitsubishi Electric's aims are summed up by the slogan, "Simply the best!".

Simply the best est!

There's a model for your needs. The GOT1000 lineup is about usability.

GT11 — Standard models offer a full array of basic functions for stand-alone use.

GT11 5.7" Type GT1150-QLBD

STN monochrome
QVGA (320 x 240 dot)
Black & white 16-step adjustment

Features
Black & white, 16-step adjustment | A-list editing | System monitor | Transparent

Standard interface, standard memory size
USB | RS-232 | RS-422 | CF card I/F | Memory 3M

Connection format*2
Direct CPU connection | Computer link | CC-Link *3

GT11 5.7" Type GT1155-QSBD

STN color
QVGA (320 x 240 dot)
256 colors

Features
256 colors | A-list editing | System monitor | Transparent

Standard interface, standard memory size
USB | RS-232 | RS-422 | CF card I/F | Memory 3M

Connection format*2
Direct CPU connection | Computer link | CC-Link *3

GT15 — Full-spec models accommodate a wide range of applications in stand-alone or network environments.

GT15 8.4" Type GT1565-VTBA

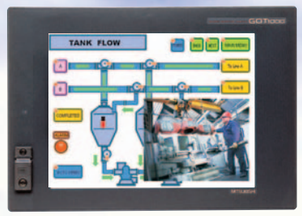
TFT color
VGA (640 x 480 dot)
256/65,536 colors*1

Features
65536 colors | 256 colors | Ethernet download | Gateway | Ladder monitor | A-list editing | System monitor | Transparent

Standard interface, standard memory size
USB | RS-232 *4 | CF card I/F | Memory 9M

Connection format*2
BUS | Direct CPU connection | Computer link | NET/10 | CC-Link | Ethernet

GT15 10.4" Type GT1575-VTBA



TFT color
VGA (640 x 480 dot)
256/65,536 colors*1

Features
65536 colors | 256 colors | Ethernet download | Gateway | Ladder monitor | A-list editing | System monitor | Transparent

Standard interface, standard memory size
USB | RS-232 *4 | CF card I/F | Memory 9M

Connection format*2
BUS | Direct CPU connection | Computer link | NET/10 | CC-Link | Ethernet

GT15 10.4" Type GT1575-STBA

TFT color
SVGA (800 x 600 dot)
256/65,536 colors*1

Features
65536 colors | 256 colors | Ethernet download | Gateway | Ladder monitor | A-list editing | System monitor | Transparent

Standard interface, standard memory size
USB | RS-232 *4 | CF card I/F | Memory 9M

Connection format*2
BUS | Direct CPU connection | Computer link | NET/10 | CC-Link | Ethernet

GT15 12.1" Type GT1585-STBA

TFT color
SVGA (800 x 600 dot)
256/65,536 colors*1

Features
65536 colors | 256 colors | Human sensor | Ethernet download | Gateway | Ladder monitor | A-list editing | System monitor | Transparent

Standard interface, standard memory size
USB | RS-232 *4 | CF card I/F | Memory 9M

Connection format*2
BUS | Direct CPU connection | Computer link | NET/10 | CC-Link | Ethernet

*1: With high-resolution graphic board (GT15-VHNB) *2: BUS, NET/10, CC-Link, and Ethernet are compatible only with Mitsubishi PLCs.
*3: Via G4 (AJ65BT-G4-S3) only. *4: RS-422 communication is possible by installing an RS-422 converter unit at the RS-232 interface.

Drawing, computing, communication A triad of high-speed response
BUS | RS-232 | RS-422

- Drawing...Equipped with a high-speed drawing chip (GT15 only).
- Computing...Offers high-speed computing performance.
- Communication...BUS connection (GT15 only) and RS-232 communication (max. 115.2kbps).

A beautiful and expressive screen
65536 colors | 256 colors | Black & white, 16-step adjustment | Memory 9M | Memory 3M

- 65536 Full color*1 (GT15)
- Black & white 16-step adjustment (GT11)
- Memory capacity Greatly increased

USB interface Standard item & front-mounted
USB | Transparent

- Data transmission speed is up to 20 times faster than previous models.
- Front-mounted USB interface allows fast data exchange.

GT15 * Functions bearing this mark are available only on GT15 series models. All other functions are supported by both the GT11 and GT15 series.

Options

*: Usable options vary according to the GOT being used. For details, refer to "Function list for each model" (on page 44).

CF card

Used for project data transmissions and for saving alarm information, etc. All models are equipped with a CF card interface as standard.

Memory card adaptor

CF card → memory card (Type II) conversion adaptor.

High-resolution graphic board

GT15 Installed in the GOT for a 65,536 colors display.

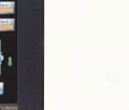
Optional function board

Installed in the GOT in order to use optional functions.

GT11 GT15

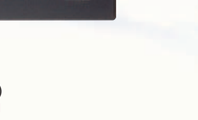
Optional expansion memory function board

GT15 Installed in GOT to permit the use of optional functions and to increase memory capacity.



Protection sheet

Protection sheet for the screen. Affixed to the GOT screen.



Clear

Anti-glare (white frame)

IP67f-compliant port cover (for replacement)

Secured by screws at the USB interface on the GOT main unit.

Battery

GT15: Data backup battery for clock data, maintenance schedule notification data.
GT11: Data backup battery for clock data, alarm history, recipe data.

GT15 (Optional) GT11 (for replacement)

Stand

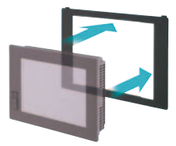
Used to support the GOT main unit on a desk during debugging operations, etc.

Backlight for replacement

GT15 Backlight for TFT-color display.

Attachment

GT15 When substituting a GOT-A900 series with a GOT1000 series (8.4" type), the attachment is mounted at the GOT-A900 mounting holes, and the GOT1000 (8.4" type) is then mounted on the attachment. Used to replace the GOT-A900 serise with the GOT 1000 serise 8.4" type.



For designers

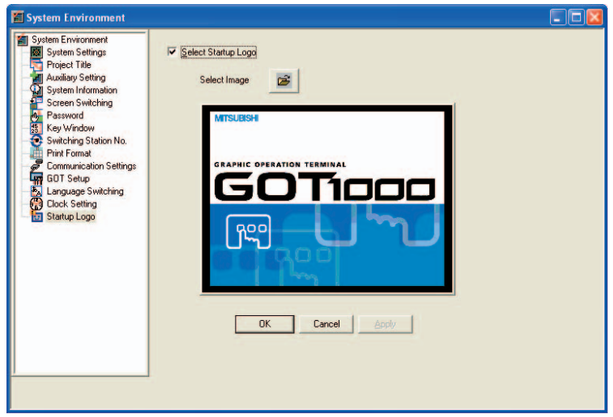
Create highly expressive screens that best suit your needs.

Boot logo
Unique startup screen can be created. NEW

- Images can be created in GT Designer2, and the desired image can be displayed when GOT is started up.
- A company's logo and messages to the operator can be displayed.
- 256-color bitmap files* can be displayed.

*: Terminal models that are unable to display 256 colors, will display in fewer colors.

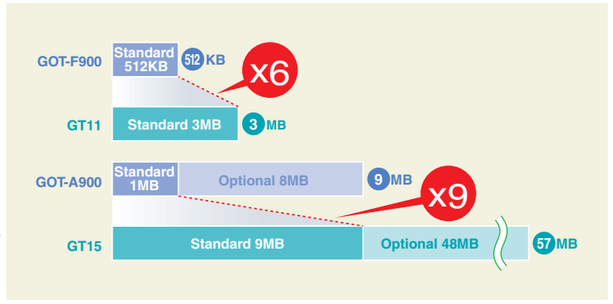
Specify a desired image using GT Designer2 → When GOT is started



Draw without memory capacity worries
Vastly increased memory capacity

- Standard 9MB memory on the GT15. Optional memory expansion up to 57MB (using optional expansion memory function board + CF card).
- Standard 3MB memory on the GT11.
- Create screens without worrying about memory capacity.
- BMP and JPEG NEW* images can be used to create easy-to-understand screens.

*: JPEG format is supported only by the GT15.



Dramatically improved display is attractive and easy to view.
An assortment of fonts allows more expression.

- Supports Windows® compatible fonts*.

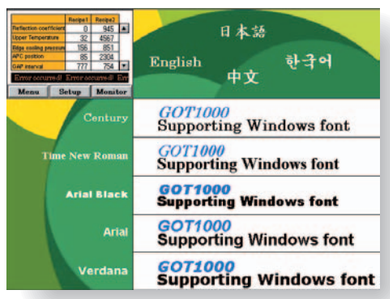
NEW *: All True Type (other than vertical scripts) and Open Type fonts can be displayed.

- When using a Windows® font, the font style (italics, underline, italics underline) can also be specified.
- Standard fonts, high-quality fonts, and True Type fonts can be used in Gothic or Mincho styles*.

*: Gothic and Mincho styles cannot be used together in the standard font.

- Attractive characters in all sizes. True Type fonts can be used.
- The Unicode2.1 compatible standard font, high-quality font, and True Type font, display sharp and attractive characters in all languages.
- Create elaborate, high-quality screens that are both attractive and easy to view.

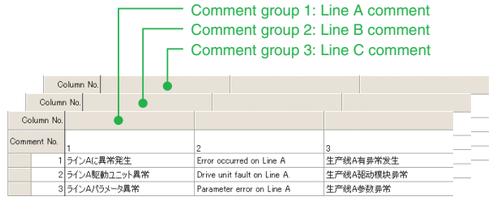
Font	Size	Style
Standard font	6 x 8 dot	Gothic
	12 dot	Gothic
	16 dot	Gothic / Mincho
High-quality font	12 dot	Gothic / Mincho
	16 dot	Gothic / Mincho
True type font	24 to 128 dot	Gothic / Mincho
Windows® font	8 to 128 dot	–



Efficient input of extensive comment data by allotment.
Comment groups

GT15

- Up to 255 comment groups can be created in addition to basic comments.



[Comment registration]

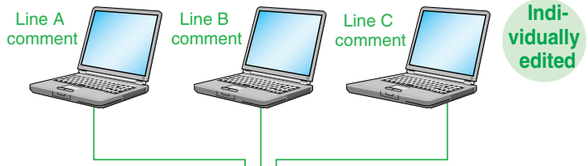
- CSV / Unicode text format files can be imported. Different files can also be input to individual comment groups, allowing the comment input task to be distributed among several workers, greatly reducing the required input time.
- The drawing software allows easy column and line insertions and comment No. changes similar to those offered by Microsoft ® Excel.

[Example of comment group use]

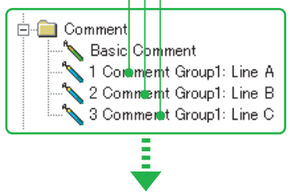
- Line-specific comment groups can be created and displayed, and switching between those groups is possible, enabling easy integrated control of multiple lines in a single project's data.
- Language-specific comment groups can also be created, with switching between the different language screens.

mExample of comment group use

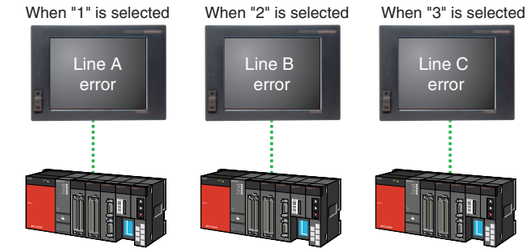
(1) Line-specific comment groups are created.



(2) Import



(3) Displayed comment group can be switched by device.



Multilingual support
Easy creation of a multilingual screen.

GT15

- Different-language comments can be created at each comment column No., enabling switching between Japanese, English, and Chinese screens, etc., simply by specifying the desired column No. at the multilingual device.
- Up to 10 columns* can be created for 1 comment No.

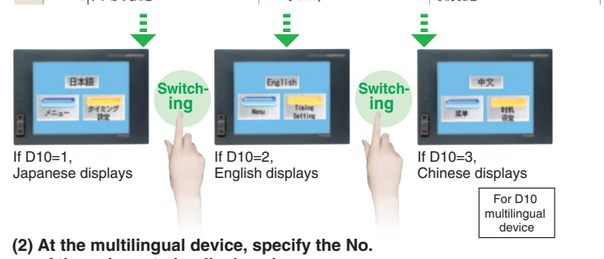
*: For details, refer to the "Comment Group" item.

- Examples of use (for switching between Japanese, English, and Chinese)
  (1) Create the Japanese, English, and Chinese comments in their respective columns.
  (2) At the multilingual device, specify the No. of the column to be displayed.
  (3) The displayed comment (language) changes.
  • Language-specific alarm display screens can also be easily created.
- Column comments can be created freely for applications, as well as for different languages.

To switch between Japanese, English, and Chinese screen

(1) Create the Japanese, English, and Chinese comments in their respective columns.

Column No.			
Comment No.	1	2	3
1	メニュー	Menu	菜单
2	タイミング設定	Timing Setup	时机设定



(2) At the multilingual device, specify the No. of the column to be displayed.

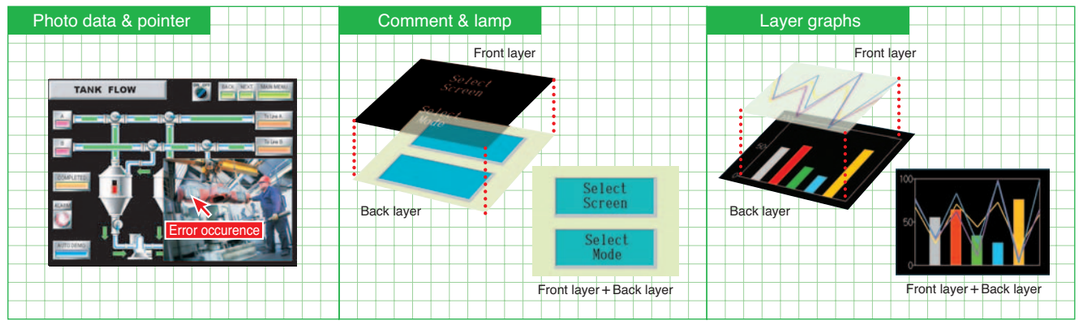
(3) The displayed comment (language) changes.

For designers

Increase design efficacy with an impressive array of clever functions.

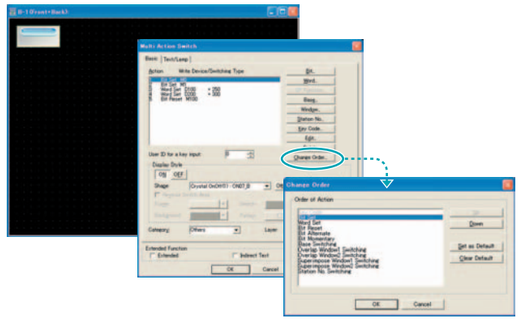
More freedom in screen design
Component layering (Layer function)

- Component (objects, figures) layering increases the freedom of design.
- Display layering is possible for components such as changing numerical values and graphs, line graphs, bar graphs, photo data, and pointers, etc.
- Offers effective use of a limited display area by allowing comments to be placed on lamps.



Convenient handshake processing, etc.
Improved switch function

- The order of multiple operations (word SET / bit SET, etc.) specified by a single touch-switch can be specified as desired. This is also convenient for handshake processing with other devices.
- At ASCII display and inputs, the lower/higher bit display order can be specified. For example, if "4142H"* is saved at the device, the display can be specified as "AB" or "BA".
  *: 41H → "A" / 42H → "B"
- At ASCII inputs, up to 16 characters can be entered by a single touch switch, permitting 16 characters, either one-byte or two-byte character, to be entered in one operation.



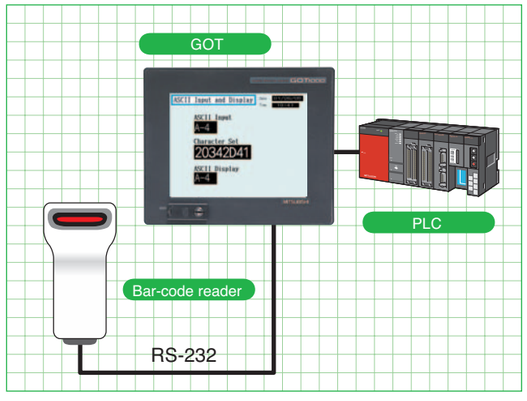
Easy acquisition of external data NEW
Bar-code reader connection

- A bar-code reader can be connected to GOT, and the bytes received as ASCII data are saved at the PLC.*

  * The bar-code function can be used when GOT's internal RS-232 interface is not in use.
- The order in which the read data is saved in the PLC devices can be selected in GT Designer2 as "L/H" (lower/higher bit) or "H/L" (higher/lower bit).
- A single bar-code reader can be connected to the RS-232 interface of each GOT.

For information regarding "compatibility-confirmed" bar-code readers, refer to the MELFANSweb website at the following address:

http://www.MitsubishiElectric.co.jp/melfansweb



For designers

Simplified maintenance through batch handling of recipe information.

Automated recipe operation without sequence programs
Advanced recipe

GT15 NEW

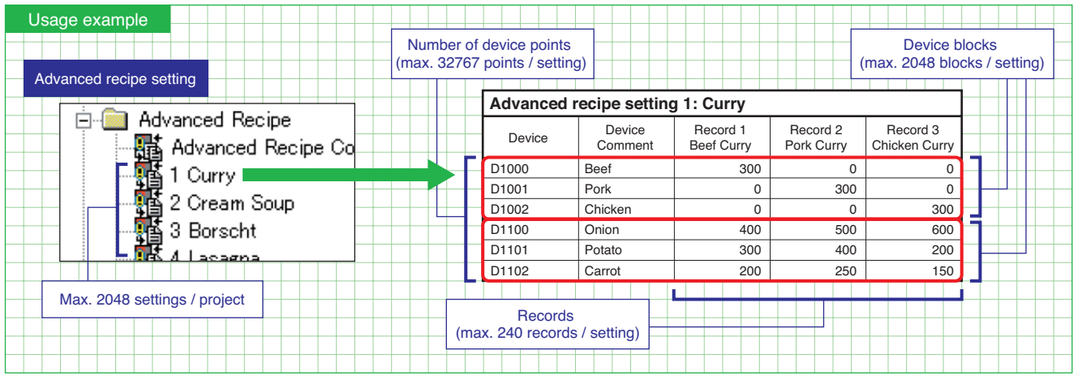
This function allows material combination data and processing conditions data, etc. (device value) to be held at GOT, with only the required data being written/read to and from the PLC.

1. Extensive amount of setting files, device points, and record points.

- A greatly expanded capacity permits up to 2048 files and 32767 device points.
- Up to 240 device records can be handled by a single advanced recipe setting file.

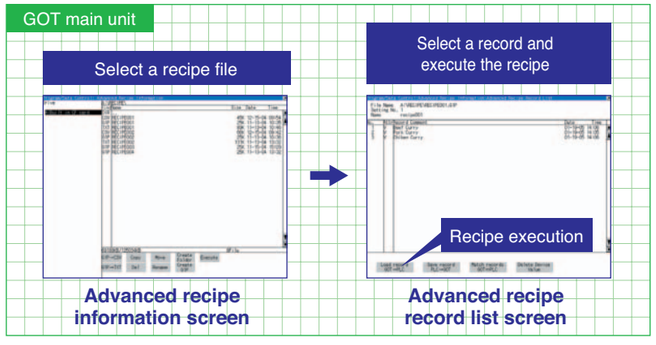
2. Flexible recipe data can now be created.

- Flexible recipe data can be created by combining advanced recipe settings and records.
- Reading/writing is performed by specifying the recipe No. and record No., eliminating the need for a trigger device at each file. This reduces the number of required devices, and permits trigger device concentration.*1
- Up to 2048 blocks are possible, with 1 block comprising a sequential word device and random word device (1 point), and a bit device (1 point).
- Because devices also permit bit and word combinations and random device settings, there is no need to concentrate the sequential devices, thereby economizing on the number of device points.
- Advanced recipe files can be edited on a personal computer.*2



3. Easy handling of recipe data at GOT

- Recipes can be handled easily by GOT's utility function without having to create a recipe operation screen.
- The utility function permits the following operations: folder create/delete, advanced recipe file copy/delete/file name change, record write/read/consistency check.
- Advanced recipe files can be converted to CSV files or Unicode text files.



*1: The "recipe No. saving device", the "record No. saving device", and the "external control device" advanced recipe common settings can be specified at the advanced recipe device dialog box in GT Designer2 (these settings are required when using an advanced recipe). Recipe data reading and writing occurs in accordance with external device ON/OFF switching, and that data displays onscreen. (It is also possible to specify a trigger device for reading/writing of each advanced recipe setting.)

*2: The advanced recipe file has a binary format. It must therefore be converted to a CSV file or Unicode text file by using GT Designer2 or the GOT's utility. After being converted, only the device values can be edited.

An optional function board is required.
GT15: GT15-FNB or GT15-QFNB (□M)

For designers

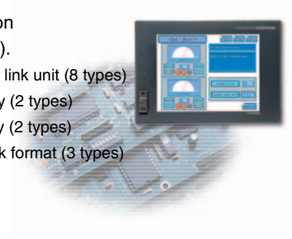
More design freedom through flexible connectivity.

For wider GOT support of applications.
Improved Microcomputer connection

- Expanded D-device support, with the following devices now supported: Bit devices: L, M, SM; Word devices: R, SD.
- The number of interruption points has been increased from 1 byte to a maximum of 4 bytes, enabling simpler control program design.
- The GOT1000 series has an internal clock function which can be used for alarm displays and clock functions.*

*: GT15 requires an optional battery (GT15-BAT) in order to save clock data.

- Offers wider communication protocol support (15 types).
  - Mitsubishi A/QnA/Q-computer link unit (8 types)
  - GOT-A900 series compatibility (2 types)
  - GOT-F900 series compatibility (2 types)
  - Digital Electronics memory link format (3 types)

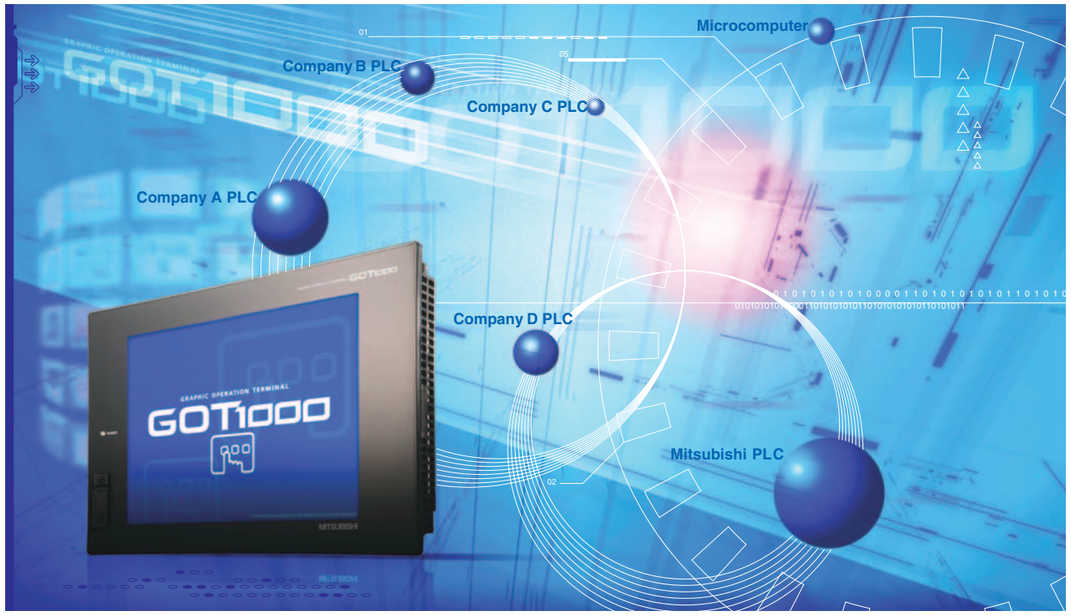


Wide PLC compatibility
Wide selection of connectable PLCs

- The GOT1000 series has expanded the range of connectable devices, permitting connection to both Mitsubishi and other brand PLCs (9 brands, including Omron, Yokogawa Electric, etc.).
- The GT15 is equipped with a high-speed RS-232 interface as standard. Moreover, RS-422 communication is possible by installing an RS-422 converter unit at the RS-232 interface.
- The GT11 is equipped with high-speed RS-232 and RS-422 interfaces (standard items) which can be used in an alternating manner, thereby enabling multiple GOTs to be connected.
- The GOT1000 series has an internal clock function that permits alarm display and clock functions even when connected to a PLC which has no clock.*

For connectable PLC models, see the "Connectable model list" (page 22).
For connection format specific features, see the "Connection configuration" section (page 25).

*: GT15 requires an optional battery (GT15-BAT) in order to save clock data.



For designers

Lead the way in information sharing between the office and worksite.

Gateway function
Be alerted to worksite errors and collect worksite controller data from an office desk.

GT15 NEW

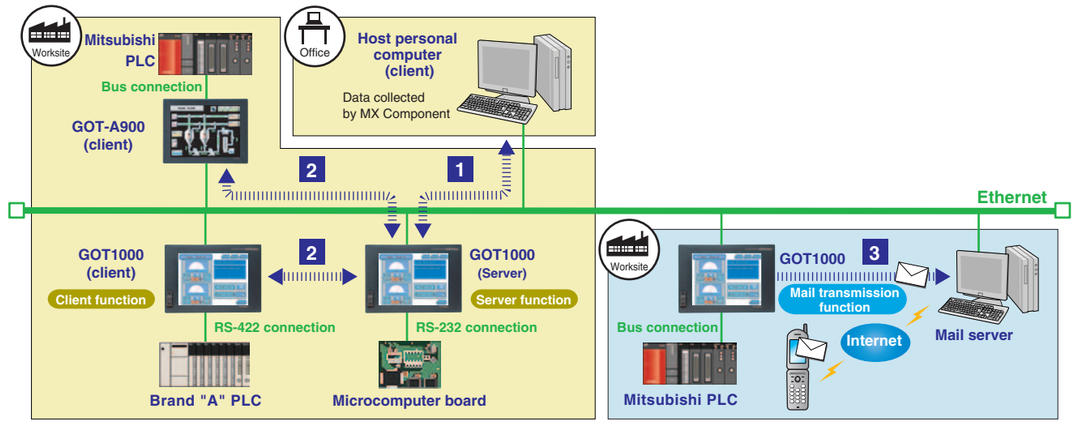
Server function & client function

1 Collect data at a personal computer (server function)

- GOT (server) can be monitored from a personal computer (MX Component) to perform indirect reading/writing at PLC CPU devices being monitored by GOT.
- Even when monitoring other-brand PLC CPUs, the server function can be used to perform reading/writing with the MX Component*1 alone.

2 Monitor other GOTs from a GOT (server function, client function)

- A GOT (server) can be monitored from another GOT (client) to perform indirect reading/writing at PLC CPU devices being monitored by GOT (server).
- The client function can be used to perform indirect reading/writing at PLC CPU brands other than the PLC CPU brand to which GOT (client) is connected.
- Communication is possible between GOT1000 and GOT-A900*2.



Mail transmission function

3 Transmit mail from GOT to a personal computer or cell phone*3

- Error information can be checked from a remote location away from the worksite.
- The alarm history display function can transmit alarm occurrence and recovery information by mail to a personal computer or cell phone.

[Devices required for gateway function use]

- Ethernet communication unit (GT15-J71E71-100)
- Communication unit for connection to PLC
- Optional function board (GT15-FNB or GT15-QFNB (☐M))

*1: Requires MX Component Version3 or later. MX Component is a communication assistance tool that permits communications from a personal computer without having to identify the communication protocol and module. Data logging, collection, and saving is possible by programming at VBA. Applications that run in MX Component (MX Sheet, etc.) can also be used.
*2: The devices required for Gateway function use at GOT1000 differ from those required at GOT-A900. For details, see the "Gateway Function" section of the GOT-A900 Series Operating Manual.
*3: Requires an SMTP (mail server). The mail transmission range depends on the SMTP (mail server) specifications.
*4: Be sure to use either GT15-QBUS or GT15-QBUS2.
*5: Be sure to use either GT15-ABUS or GT15-ABUS2.
*6: Communication between the Gateway function and a PLC is possible by using a single Ethernet communication unit.

[Gateway function compatible connection formats]

○: YES (compatible) ×: NO (not compatible)

Connection Format(Between GOT and PLC)			YES/NO
Mitsubishi PLC/ Motion controller	• Bus connection (MELSEC-Q)*4	(Soon to be compatible)	○
	• Bus connection (MELSEC-QnA/A)*5	(Soon to be compatible)	○
	• CPU direct connection		○
	• Computer link connection		○
	• MELSECNET/10 connection		×
	• CC-Link connection (ID)		×
	• CC-Link connection (via G4)		○
	• Ethernet connection *6		○
Omron Corp. PLC			○
Sharp Corp. PLC			○
Toshiba Corp. PLC			○
Hitachi Industrial Equipment Systems Co., Ltd. PLC			○
Matsushita Electric Works, Ltd. PLC			○
Yaskawa Electric Corp. PLC			○
Yokogawa Electric Corp. PLC			○
Allen-Bradley PLC			○
SIEMENS PLC			○
Microcomputer board, personal computer, etc. (microcomputer connection)			○
Servo amplifier connection			×

For designers

Create designs the way you imagined them

MELSOFT **GT Designer 2** Version2 Ver UP

Reduction in screen drawing time by half*1

- Reduction in screen drawing time by half
- Windows® standard operability and menu configuration
- Data compatibility with GT Designer

Workspace

An intuitive tree display, with easy copying and deletion

Project workspace

It's easy to see the entire project so the screen to be edited can be selected right away.

Category workspace

The device, color, and figure of components can be batch-changed in screen or category units, even when located on multiple screens.

*: "Category" refers to objects or figures that have been grouped according to purpose.

Library workspace

Frequently used components can be registered as "favorites", permitting quick access to an object or figure.

Property sheet

List display of object & figure setting content

- A setting content list can be displayed for the selected object or figure.
- Similar objects can be selected, and the color and font size can be set in one go.
- Multiple same-type objects and figures can be selected, and their color and character size, etc., can be batch-changed.

Dialogue box

Object & figure setting screen

- A setting content screen displays by double-clicking the object or figure.
- Figure changes are immediately reflected onscreen.

  This allows work to be performed while checking the onscreen results, thereby simplifying the process and reducing setting errors.

*: This is possible at the "Property Sheet" as well.

Library editor

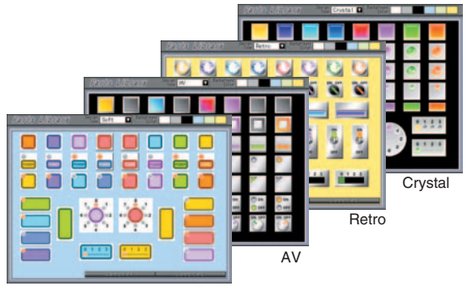
Dedicated component editing screen

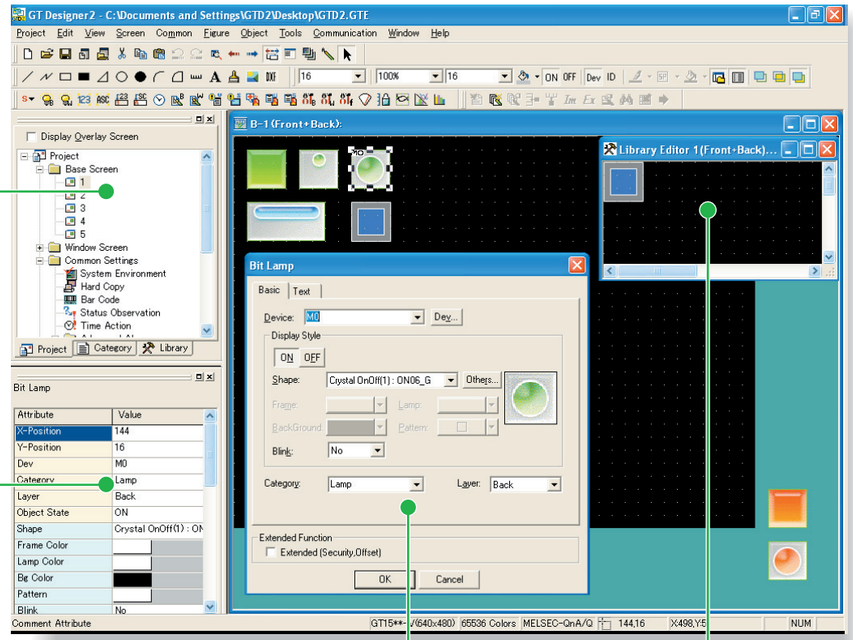
- A component editing screen displays by double-clicking a registered component at the library workspace.
- Editing of registered components is quick and easy.

Easy creation of attractive and easy-to-view screens

Equipped with a top-class system parts library

- User libraries are also easily imported. NEW
- An assortment of touch-switches and lamps, etc., are available to accommodate a full range of tastes, making it easy to create a consistent design motif.
- Even a novice can easily create an elegantly designed screen.

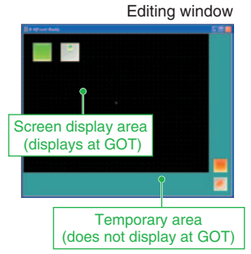




Use of temporary area

Another screen creation tool

- A "temporary area" has been added to the editing window's conventional screen display area.
- When creating screens, or when changing a screen layout, objects and figures can be placed temporarily in the "temporary area", making the process easier.



Display of actual GOT screen

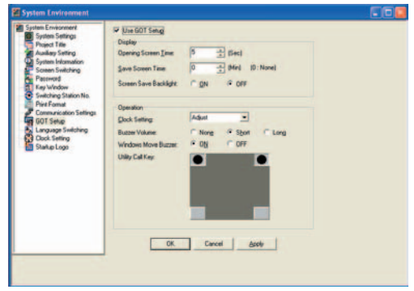
Window preview

- The drawing software can display window screens (key window, overlapping window, superimposed window) just as they will appear at GOT, allowing them to be previewed.
- The key pad can be displayed just as it will appear at GOT, allowing its position, size, and appearance etc., to be checked.

GOT setup

GOT settings can also be specified

- Settings which previously had to be specified at the GOT, can now be specified from the drawing software as well.
- Settings such as the communication I/F settings (number of bus connection extension stages, etc.) and the screen-save time period, etc., can be specified, thereby simplifying the GOT setup procedure.

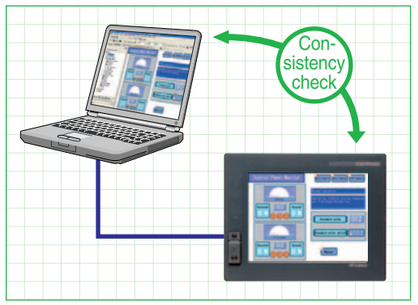


- Even when using multiple GOTs, settings can be downloaded from the drawing software, eliminating the need for individual GOT setups.

Better project data maintenance efficiency

Project data consistency check function NEW

- Consistency checks between the GOT's project data and the personal computer project data can be performed.
- This allows project data inconsistencies to be identified, thereby reducing unnecessary uploads and downloads.



Reliable compatible with existing GOT projects reuse work friendly to customer existing resources compatible

Backward compatibility

- GT Designer → GT Designer2 compatibility*2
  GT Designer2 is compatible with project data created by GT Designer.
- GOT-900 → GOT1000 compatibility*2
  GOT1000 is compatible with project data created at GOT-900.

*1: Compared to Mitsubishi Electric's GT Designer.
*2: Backward compatibility does not extend to certain data and functions. Moreover, GOT1000 screen data cannot be used at GOT-900.

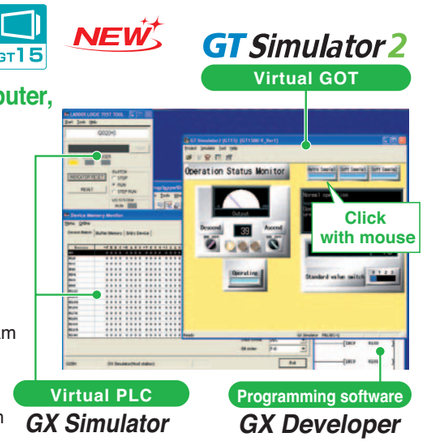
For designers

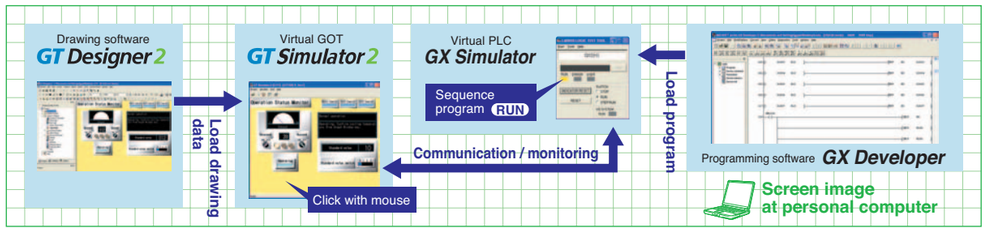
Efficient debugging

MELSOFT **GT Simulator2** Version2 GT15 NEW

1. Debugging is possible from a single personal computer, without actual GOT and PLC operation required.*1

- A GT Simulator2 screen debugging function permits screen editing in GT Designer2 with the results immediately verifiable in GT Simulator2, thereby greatly reducing debugging man-hours.
- The input to a touch switch is simulated by clicking on the touch switch on GT Simulator2 with the mouse. The result of input to the touch switch can be confirmed by a display change on GT Simulator2, the device monitor screen on GX Simulator, or the ladder monitor of GX Developer.
- GT Simulator2 can be used in combination with a sequence program created in GX Developer to recreate the screen motion, allowing debugging to be performed in an intuitive manner.
- System alarm and script error information can be checked in GT Simulator2, even if no system alarm settings have been specified in GT Designer2.

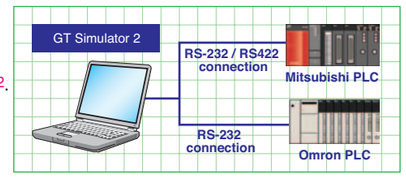




2. Debugging is possible by connection with a PLC, without actual GOT operation required

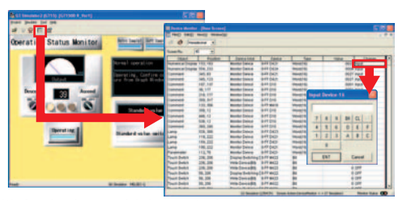
Debugging can be performed using a direct CPU connection between a personal computer (GT Simulator2) and a PLC, with no actual GOT unit operation required. Connection is possible to Mitsubishi and Omron PLCs*2.

Connectable PLCs	PLC ⇔ Personal Computer Connection
Mitsubishi PLC (Q/QnA/A/FX series)	RS-232/RS-422
Omron Corp. PLC*2	RS-232



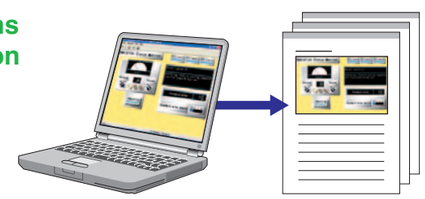
3. Device monitor function permits monitoring of a wide array of devices

- Monitoring is possible for displayed devices. (GOT internal devices can also be monitored.)
- In addition to displayed devices, monitoring is also possible for devices with common settings, as well as for overlapping windows 1 & 2, and superimposed windows 1 & 2.
- Because devices can be registered freely, it is possible to register multiple devices which are to be monitored.



4. Powerful support of customer specifications compatibility checks and document creation

- While observing the operation image, the customer's screen specifications can be arranged without actual unit operation.
- Display screen snapshots can be saved to the personal computer's hard disk as BMP/JPEG files that are extremely useful when creating specifications and operation manuals.



*1: Requires GX Simulator (ladder logic test tool). *2: For connectable PLC model information, see the "Connectable model list" on page 24.
[Unsupported functions] Utility functions (some are usable), system monitor function, barcode function, ladder monitor function, A-list editing function, Gateway function, FA transparent function, human sensor.

Operator

State-of-the-art operation environment

Drawing, computing, communication; a triad of high-speed response functions

Dramatically improved GOT total response

The GOT1000 Series offers faster response in drawing, computing, and communication, reducing monitoring and operation stress.

[High-speed drawing] Equipped with a high-speed drawing chip (GT15 only).
- High-speed drawing of figures and characters was realized through the development of drawing chip especially for the GOT1000 Series.
- Sharp and quick drawing of complex, layered component screens, and detailed photographic data.

[High-speed computing] GT11: Equipped with 64-bit RISC processor / GT15: Equipped with 64-bit super-scalar RISC processor
- Ultra high performance processing power to satisfy the most complex and demanding of applications.

[High-speed communication]
- High-speed RS-232 communication (max. 115.2kbps).
- GT15 high-speed communication is possible by bus connection.
- High-speed communication is possible for connections with both Mitsubishi and other-brand PLCs.

Response comparison with GOT-900 series

For connectable PLC models, see the "Connectable model list" from page 22.
For connection format specific features, see the "Connection configuration" section from page 25.

65536-colors full color / monochrome 16-step adjustment

Sharp display that's easy to view

- The standard GT15 has 256 colors. 65536 colors are available when high-resolution graphic board is installed. JPEG (NEW) and BMP images can be used at the troubleshooting screen, etc., for vivid and easy-to-understand displays.
- The GT11 is available with either a 256-colors display or a monochrome (black & white) display. The 256-colors type features a long-life backlight with a lifespan of 75,000 hours or more. The monochrome (black & white) display offers a 16-step adjustment for improved expression.
- A high intensity, with a wide-view angle and vivid colors offers sharp and attractive displays.
- A high transmissivity protection sheet* is available to protect the screen and prevent reflection, resulting in a clear, easy-to-view screen.

*: The protection sheet is an optional item.

GT15

65536 colors

256 colors

GT11

STN color, 256 colors

STN Black & white 16-step adjustment

Accommodates production site globalization.

Easy switching between different languages

- The Unicode2.1 compatible standard font, high-quality font, and True Type font, display sharp and attractive characters in all languages.
- Allows the creation of elaborate, high-quality screens that are both attractive and easy to view.

- One-touch switching between different-language screens* accommodates different languages spoken by production site operators. (GT15 only)

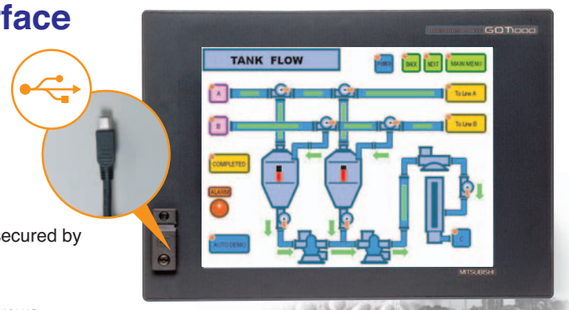
*: For function details, see the "Multilingual support " section on page 7.

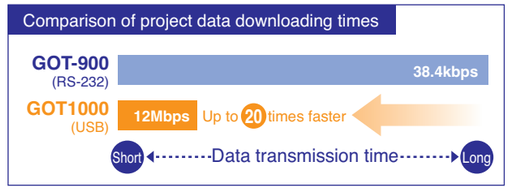
Initial startup & adjustment operator

For minimizing procedure man-hours and setup

Easy cable connection without opening the cabinet
Equipped with front USB interface

- A front USB interface allows cables to be connected without having to open the cabinet. Work efficiency is improved by eliminating the time-consuming process of opening and closing the cabinet door at GOT data transmissions.
- The USB interface is a standard item at all models. Data transmission can be up to 20 times faster than the previous RS-232 format, greatly reducing the time required for startup and adjustment.
- Equipped with an IP67 rated port cover as standard. When secured by screws, the cover complies with the IP67f* standard.
  *: Compliance cannot be guaranteed in all customer environments. Moreover, the IP67 rating does not apply when a USB cable is connected.
- The IP67 rated port cover is easily opened/closed by coin screws.





With USB cable

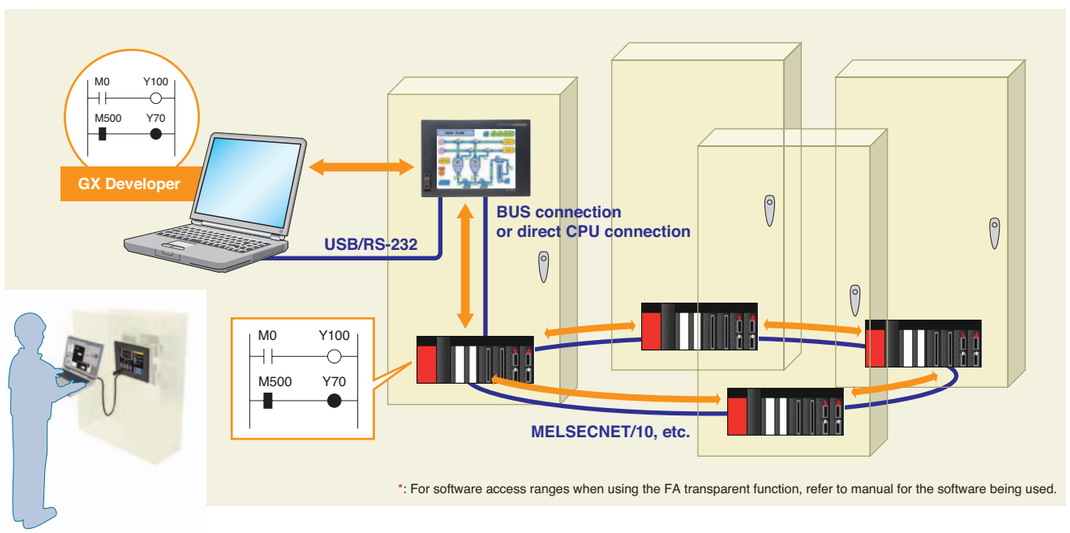
Standard item IP67f
(with IP67 rated port cover installed)

Edit sequence programs without opening the cabinet
FA transparent function

NEW

- Sequence program debugging, startup, and adjustment can be performed via GOT's front USB interface.*1 There is no need to open the cabinet and change cable connections. (Operation is also possible via the RS-232 interface.)*2
- When GOT is connected to a Mitsubishi PLC by BUS connection*3 or direct CPU connection, program reading, writing, and monitoring can be performed via GOT.

*1: Requires GX Developer Version 8.22Y or later.
*2: When RS-232 is used to connect GOT to the PLC, GOT can only be connected to a personal computer by the USB interface.
*3: When multiple GOT units are connected by a BUS connection, the FA transparent function can be used at each of the GOT units.

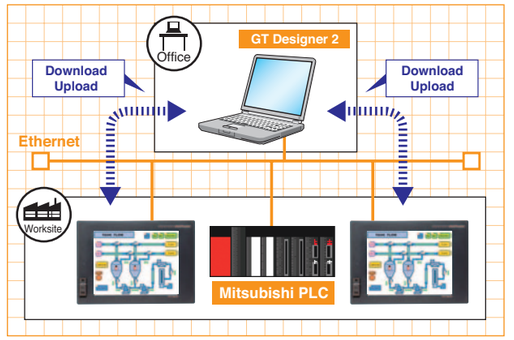


*: For software access ranges when using the FA transparent function, refer to manual for the software being used.

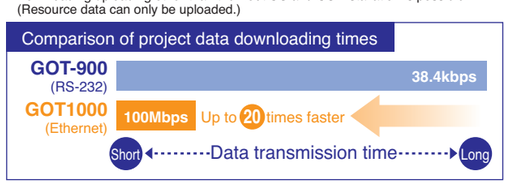
Project data can be maintained from a remote location
High-speed downloading /uploading* via Ethernet

GT15 NEW

- Project data from a personal computer at a remote site can be downloaded and uploaded to a GOT terminal by way of Ethernet.

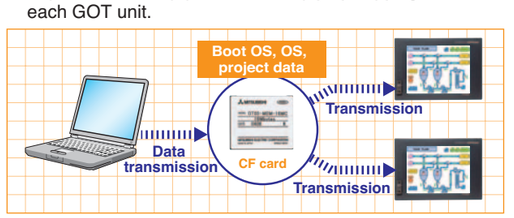


*: Requires an Ethernet communication unit (GT15-J71E71-100) installed in a GOT main unit where basic functions have also been installed.
*: Downloading/uploading other than the Boot OS and OS installation is possible. (Resource data can only be uploaded.)



Easy GOT data transmissions & setup
Standard-item CF card interface

- All models are equipped with a CF card interface as standard.
- Permits rapid GOT data transmissions even when GOT is not connected by cable to a personal computer.
- When using multiple GOT units, a single CF card enables a quick GOT setup procedure simply by copying the data to each GOT unit.



The CF card can also be used for the following GT15 functions, in addition to data transmission: Advanced alarm, alarm history (also possible at GT11), advanced recipe, recipe function, hard copy function, parts display function, parts movement function.

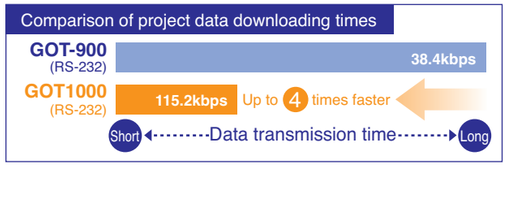
For information regarding compatibility-confirmed CF card, refer to the MELFANSweb website at the following address:

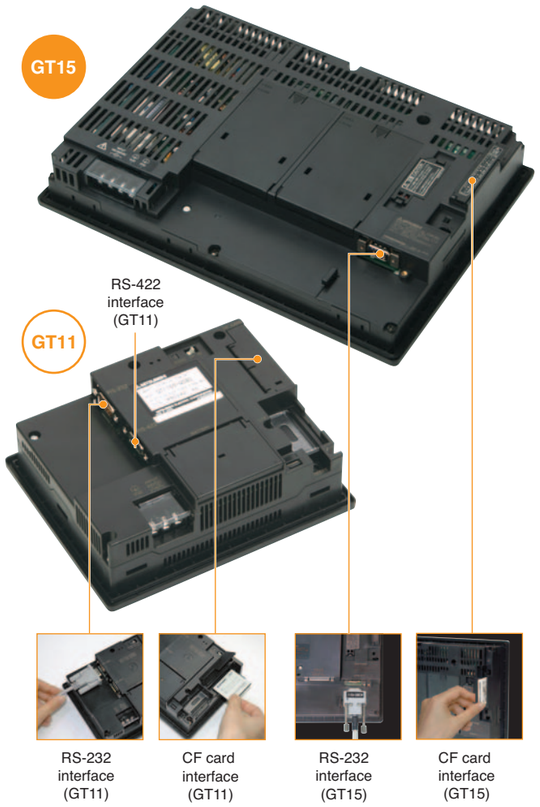
http://www.MitsubishiElectric.co.jp/melfansweb

For GOT data transmissions & a variety of external connections
Standard-item RS-232 interface

- Both the GT15 and GT11 have RS-232 interfaces located in convenient positions (bottom, and side face, respectively) for cable connection.
- Used for GOT data transmissions.
- Used for the FA transparent function*.
  *: Usable only when GT15 is BUS-connected to a Mitsubishi PLC, and when GT11 is connected directly to a Mitsubishi PLC CPU by way of the RS-422 interface.

The RS-232 interface can be used for the following functions in addition to data transmission
: For PLC connection, for servo amplifier connection, for barcode reader connection.





Features and recommended points

For maintenance personnel

Rapid diagnostics and identification to minimize machine downtime

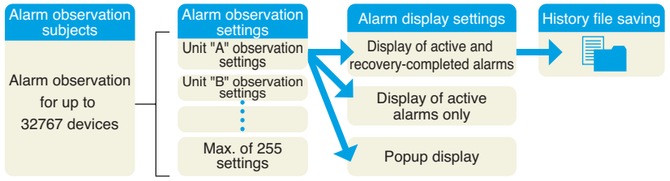
From error detection to recovery
Advanced alarm

GT15

The GOT1000 Series offers quick error detection and cause identification, enabling a speedy system recovery.

Advanced alarm features

1. A wider monitoring range protects even large-scale systems.
2. Rapid detection and corrective action for a wide array of alarms.
3. Easy-to-understand error displays for the operator.
4. Improved system alarms.
5. Support in identifying alarm causes.



1. A wider monitoring range protects even large-scale systems.

- Alarm observation is possible for up to 32767 devices, with a maximum of 255 alarm observation setting groups.
- 3 types of alarm displays can be specified for a single alarm observation setting.
- Up to 32767 alarms can be saved in the alarm history.
- Batch display of large amounts of alarm information in large-scale systems, and unit-specific classification for easy management.

2. Rapid detection and corrective action for a wide array of alarms.

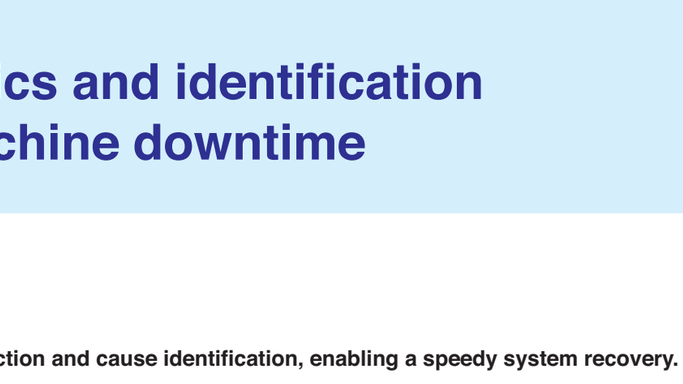
4-step alarm notification

- Alarm occurrence conditions can be divided into 4 steps, and conveyed to the operator in an easy-to-understand, step-by-step format.

For example...

1. **Alarms by line (upper step)**
2. **Alarms by unit (middle step)**
3. **Alarm content (general step)**
4. **Troubleshooting (details step)**

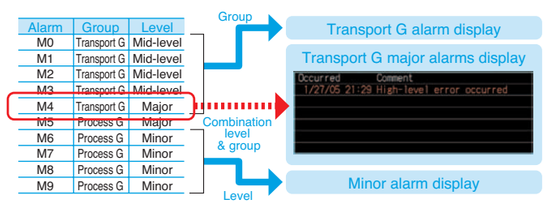
When multiple alarms occur, the above format permits the operator to quickly organize and identify the alarm conditions (where, what kind of alarm), resulting in effective troubleshooting.



- The 4 steps shown above can be freely defined to suit the application in question, with switching between the step displays performed by the step switching device or by touch-screen operation.

Group-specific & level-specific displays

- Alarms can be classified by group and level, with only the specified alarms being displayed.
- This makes it easy to identify the locations and types of alarms, even when many alarms have occurred, and permits the higher priority alarms to be handled first, resulting in a speedy system recovery.



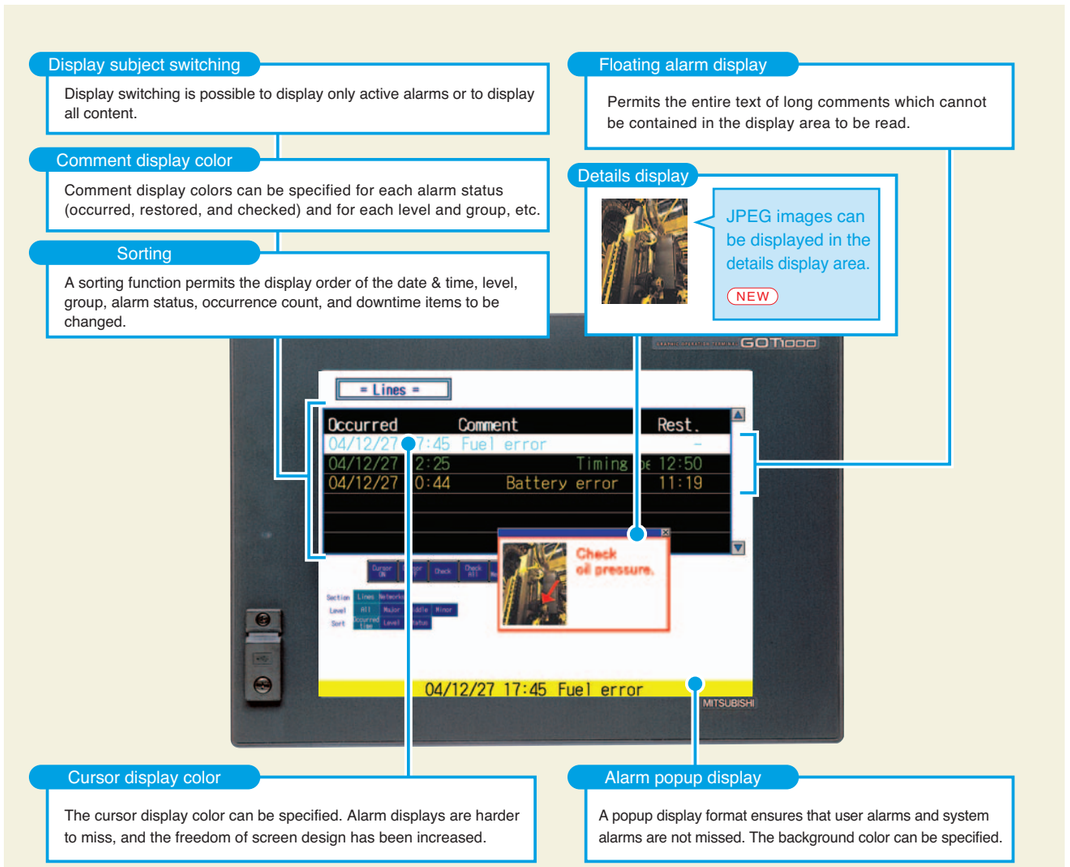
1. By group
Alarms are divided into groups (transport unit group, processing unit group, etc.), with alarms displaying only for the specified groups.

2. By level
Alarms are divided into levels (major, mid-level, minor), with only the specified level alarms displaying.

3. Combination group & level
Only the specified group and level alarms display.

3. Easy-to-understand display

- The use of colors and popups produce easily recognizable alarm displays.
- Ensures that alarms are not overlooked and that the alarm content is understood, resulting in a speedy system recovery.



4. Improved system alarms

- The PLC/GOT/Network monitoring subject can be specified in advance, with only those specified alarms being displayed.
- If desired, only the active alarms are displayed. An alarm history display and history file saving are also possible.

5. Support in identifying alarm causes (utility function)

- Alarm occurrence conditions can be displayed in time-series graph form.
- Alarm occurrence counts can be displayed in bar-graph form.
- A graphical statistics display facilitates efficient analysis of error causes.

For maintenance personnel

A more intuitive representation of error conditions

Color-coded front face LED & maintenance schedule notification function
Convenient consumable item maintenance

1. Color-coded front face LED

● The color of the LED on the front of the GOT unit indicates whether the backlight is OFF or has expired.

[POWER LED: Color-coded message]

Green ON	When normal power is being supplied
Orange ON	When in screen-save mode
Orange/green blinking	When backlight life has expired
OFF	When power is not being supplied

2. Maintenance schedule notification function (GT15 only)

● The backlight lifespan can be monitored by an automatic "power ON time" count function, combined with a 2-stage maintenance schedule notification function.

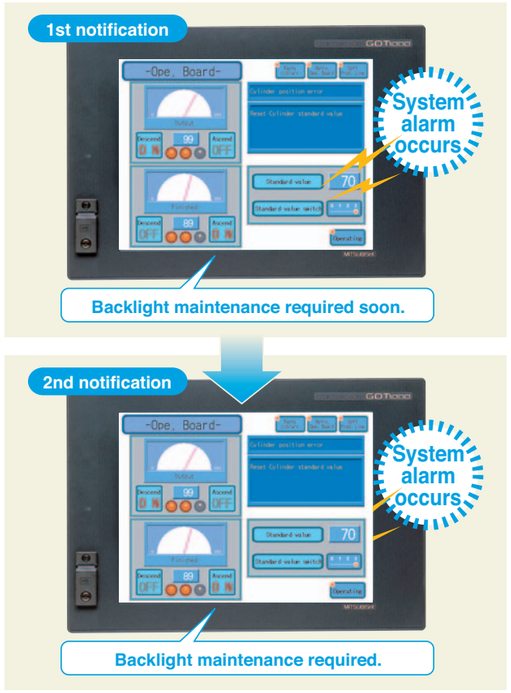
● Monitored subjects
- Backlight, display area (power ON time)
- Touch-keys (key pressing count)
- Internal flash memory (writings count)

● Facilitates scheduled maintenance, thereby preventing system malfunctions.

Requires optional function board.
GT15...GT15-FNB or GT15-QFNB (□M)

Battery required.
GT15...GT15-BAT

■Maintenance schedule notification function (GT15 only)



Easy monitoring of servo amplifier parameter settings, etc.
Servo amplifier connection

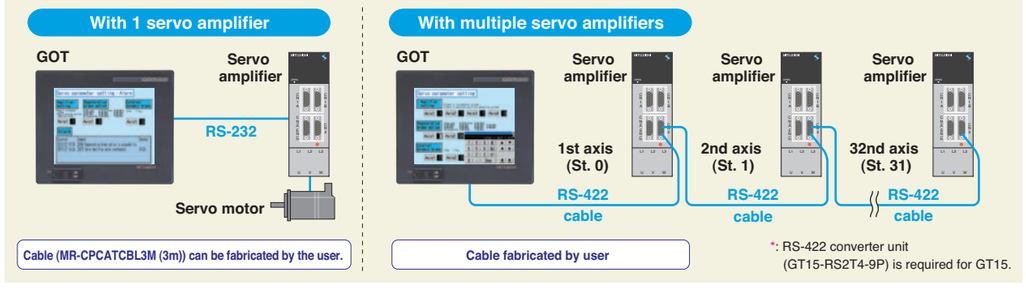
● GOT can be connected to a servo amplifier to perform the following operations: parameter monitoring & setting, alarm displays (current alarms / alarm history), status data display, external inputs/outputs prohibit or enable, servo requests (primarily, data clear, prohibit, and cancel requests), station No. setting (direct station No. setting / indirect station No. setting / all stations setting).*

*: GOT cannot be connected simultaneously to both a servo amplifier and a PLC.

■Connectable servo amplifiers

MELSERVO-J2-super series	MR-J2S-□A
	MR-J2S-□CP
MELSERVO-J2M series	MR-J2M-P8A
	MR-J2M-□DU

● The parameter setting screen and alarm screen can be freely created by the user.



*: RS-422 converter unit (GT15-RS2T4-9P) is required for GT15.

For maintenance personnel

For instantaneous checks and changes from GOT even without a dedicated system

Ladder monitor function (MELSEC affinity)
Sequence program monitoring & troubleshooting

● Mitsubishi PLC sequence program monitoring, device searches, and troubleshooting can be performed.
[Ladder monitor] Sequence program ladder format monitoring.
Statements, notes, and device comments (max. 32 chars.) specified at GX Developer can be displayed.
[Trouble shooting] When a problem occurs, a back-tracking ladder search can be performed to find the contact that is causing the coil ON (or OFF) condition.
[Touch search*1] A displayed coil (or contact) can be touched to facilitate a search of that device's contacts (or coils).
[Search] Device, contact, coil, step, and ladder END searches are possible.
[Test] Device values and timer (T) / counter (C) setting values can be changed.
[Ladder HOLD*1] An internal flash memory or standard CF card ladder HOLD can be performed.

*1: MELSEC-Q/QnA series only.

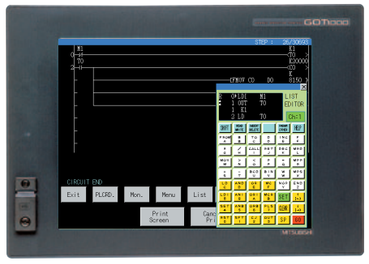
● Use together with the alarm history function to easily identify alarm causes.

Requires optional function board.
GT15...GT15-FNB or GT15-QFNB (□M)
The GT15-QFNB (□M) is required when using the Q/QnA ladder monitor function.

A-list editing function (MELSEC affinity)
Convenient method for minor program changes onsite

● MELSEC-A series PLC sequence programs can be edited in a list format (instruction word).
● Same key configuration as the A8UPU.
● Permits minor program changes onsite, even without peripheral devices.
● The GT15 permits sequence program editing while viewing the ladder (combined with the ladder monitor function).

Requires optional function board.
GT15...GT15-FNB or GT15-QFNB (□M)
GT11...GT11-50FNB



System monitor function (MELSEC affinity)
Sequence device monitoring / changes

● Mitsubishi PLC CPU devices can be monitored and changed.
- Monitoring can be performed by selecting the device to be monitored, or by specifying the initial device.
- The timer (T) / counter (C) current values and setting values can be changed.

● A special function unit's buffer memory (BM) can be monitored and changed.
● The display format (decimal / hexadecimal) and the device comment display status (ON/OFF) can be switched.

Connectable model list

The GOT1000 series allows connection to Mitsubishi PLCs and a variety of other FA devices.

[PLC/motion controller]

Mitsubishi PLCs/motion controllers In addition to a BUS connection, GT15 can also be connected to a MELSECNET/10 or Ethernet network. The GT11 is equipped with RS-232 and RS-422 interfaces (as standard) which can be used in an alternating manner, thereby enabling multiple GOTs to be connected.

Series	Model name	Connection configuration						
		BUS connection *1*2	CPU direct connection	Computer-link connection *5	MELSECNET/10 *1*3	CC-Link (ID) *1*4	CC-Link (via G4) *4	Ethernet *1
MELSEC-Q series (Q mode)	Q00JCPU	○*7	○	○	○*8	○	○	○
	Q00CPU *6	○						
	Q01CPU *6							
	Q02CPU *6							
	Q02HCPU *6							
	Q06HCPU *6							
	Q12HCPU *6							
	Q25HCPU							
	Q12PHCPU							
	Q25PHCPU							
	Q12PRHCPU	×	○*9	×	○*8*10	○	○	○*10
	Q25PRHCPU							
MELSECNET/H remote I/O stations	QJ72LP25-25	×	○*11	○	×	×	×	×
	QJ72LP25G							
	QJ72BR15							
MELSEC-Q series (A mode)	Q02CPU-A	×	○	○	○	○	×	○
	Q02HCPU-A							
	Q06HCPU-A							
MELSEC-QnA series (QnACPU type)	Q2ACPU	○	○	○	○	○	×	○
	Q2ACPU-S1							
	Q3ACPU							
	Q4ACPU							
	Q4ARCPU	○*12						
MELSEC-QnA series (QnASCPU type)	Q2ASCPU	○						
	Q2ASCPU-S1							
	Q2ASHCPU							
	Q2ASHCPU-S1							
MELSEC-A series (AnCPU type)	A2UCPU	○	○	○	○	○	×	○
	A2UCPU-S1							
	A3UCPU							
	A4UCPU							
	A2ACPU							
	A2ACPUP21							
	A2ACPUR21							
	A2ACPU-S1							
	A2ACPUP21-S1							
	A2ACPUR21-S1							
	A3ACPU							
	A3ACPUP21							
	A3ACPUR21							
	A1NCPU		○*14					
	A1NCPUP21							
	A1NCPUR21							
	A2NCPU							
	A2NCPUP21							
	A2NCPUR21							
	A2NCPU-S1							
	A2NCPUP21-S1							
	A2NCPUR21-S1							
	A3NCPU							
	A3NCPUP21							
	A3NCPUR21							

Series	Model name	Connection configuration						
		BUS connection *1*2	CPU direct connection	Computer-link connection *5	MELSECNET/10 *1*3	CC-Link (ID) *1*4	CC-Link (via G4) *4	Ethernet *1
MELSEC-A series (AnSCPU type)	A2USCPU	○	○*13*14	○	○	○	×	○
	A2USCPU-S1							
	A2USHCPU-S1							
	A1SCPU	○						
	A1SCPUC24-R2							
	A1SHCPU							
	A2SCPU	○						
	A2SCPU-S1							
	A2SHCPU							
	A2SHCPU-S1							
	A1SJCPU	○*15						
	A1SJCPU-S3							
	A1SJHCPU							
MELSEC-A series	A0J2HCPU	○	○*13*14	○	×	○	×	○
	A0J2HCPUP21							
	A0J2HCPUR21							
	A0J2HCPU-DC24							
	A2CCPU	×	○*14	×	×	×	×	×
	A2CCPUP21		○					
	A2CCPUR21		○					
	A2CCPUC24	×	○	○	×	×	×	×
	A2CCPUC24-PRF							
	A2CJCPU-S3	×	○	×	×	×	×	×
	A1FXCPU	×	○	×	×	×	×	×
Motion controller CPU (Q series)	Q172CPU *16	○*18	○*18	○*19	○*19	○*19	○*19	○*19
	Q173CPU *16							
	Q172CPUN *16	○	○	○	○	○	○	○
	Q173CPUN *16							
	Q172HCPU		○*17					
	Q173HCPU							
Motion controller CPU (A series) (large type)	A273UCPU	○	○	○	○	○	×	○
	A273UHCPU							
	A273UHCPU-S3							
	A373UCPU							
	A373UCPU-S3							
Motion controller CPU (A series) (small type)	A171SCPU	○*20	○*13	○	○	○	×	○
	A171SCPU-S3							
	A171SCPU-S3N							
	A171SHCPU							
	A171SHCPUN							
	A172SHCPU							
	A172SHCPUN							
	A173UHCPU							
	A173UHCPU-S1							
MELSEC-FX series	FX0S	×	○	×	×	×	×	×
	FX0N							
	FX1S							
	FX1N							
	FX1NC							
	FX2N							
	FX2NC							
	FX3UC							

*1: Supported only by the GT15.
*2: When connecting multiple GOTs, note that the following GOT models cannot be used together: GOT1000 series, GOT-A900 series, GOT800 series, and A77GOT.
*3: When MELSEC/H is used in NET10 Mode, the GOT terminal cannot be connected directly to a Remote I/O station.
*4: CC-Link (ID): Connected as CC-Link (intelligent device station). CC-Link (via G4): Connected to a CC-Link system via AJ65BT-G4-S3.
*5: When using A Series computer link (C24 modules) with QCPU/QnACPU, only the device ranges within QnACPU specifications are supported.
The following devices cannot be monitored:
· Devices that have been newly added to the QCPU/QnACPU.
· Latch relay (L) and step relay (S).
In the QCPU/QnACPU, the latch relay (L) and step relay (S) are separate devices from the internal relay (M), but the internal relay is nonetheless accessed when either the latch relay or step relay is specified.
· File register (R)
· Local devices
*6: Use CPU function version "B" or later in a multiple CPU system.
*7: When using a BUS extension connector box, it must be installed at an extension base. (It cannot be installed at the main base.)
*8: Use function version "B" or later for the CPU and MELSECNET/H network unit.
*9: Does not support automatic system switch. (If there is only 1 GOT, plug the GOT cable into the CPU of the control system to be monitored. If there are 2 GOTs, plug each of them into the respective CPUs of the "A" and "B" systems to be monitored.)
*10: Does not support automatic system switch. (Use the script to switch systems.)
*11: With redundant system, the standby system automatically takes over the control if control system goes down.
*12: In Q4ARCPU redundant systems, GOT must be BUS-connected to the last stage's redundant system extension base A68RB version "B" or later.
*13: Computer link unit software version "U" or later must be used for the A2SCPU, A2SHCPU, A1SHCPU, A1SJHCPU, A0J2HCPU, A171SHCPU, and A172SHCPU computer link connections.
The A0J2-C214-S1, dedicated computer link unit for A0J2HCPU, cannot be used.
*14: Only the following software version or later can be used to monitor the AnNCPU (S1), A2SCPU, A0J2HCPU, and A2CCPU. Earlier versions cannot be used.
· AnNCPU (S1) : A "with link" status requires version "L" or later, and a "without link" status requires version "H" or later.
· A2SCPU : Version "H" or later
· A0J2HCPU (with link/without link) : Version "E" or later
· A0J2HCPU-DC24 : Version "B" or later
· A2CCPU : Version "H" or later
*15: Cannot connect to BUS if an extension base is connected.
*16: Use of the SV13, SV22, or V43 requires a motion controller with the following OS version installed.
SW6RN-SV13Q□: 00H or later (00E or later when Q172CPU, Q173CPU and BUS connection, or direct CPU connection exists)
SW6RN-SV22Q□: 00H or later (00E or later when Q172CPU, Q173CPU and BUS connection, or direct CPU connection exists)
SW6RN-SV43Q□: 00B or later
*17: Only a USB interface is available on Q172HCPU and Q173HCPU units.
The Q172HCPU and Q173HCPU can be accessed using a multi-CPU system QCPU RS-232.
*18: Use a unit with the following serial No.
Q172CPU Serial No. K******* or later
Q173CPU Serial No. J******* or later
*19: Use a unit with the following serial No.
Q172CPU Serial No. N******* or later
Q173CPU Serial No. M******* or later
*20: If an extension base is to be used, use the A168B.

■Modules that can be connected with Mitsubishi PLC

●For computer link connection

CPU series	Computer link modules/serial communication modules *1		
	Model	CH1	CH2
MELSEC-Q series (Q mode) MELSECNET/H remote I/O stations	QJ71C24 *2	RS-232	RS-422/485
	QJ71C24-R2 *2	RS-232	RS-232
	QJ71C24N	RS-232	RS-422/485
	QJ71C24N-R2	RS-232	RS-232
	QJ71C24N-R4	RS-422/485	RS-422/485
	QJ71CMO *3	Module connector	RS-232
MELSEC-Q series (A mode)	A1SJ71UC24-R2	RS-232	–
	A1SJ71UC24-R4	RS-422/485	–
MELSEC-QnA series	AJ71QC24 *4	RS-232	RS-422/485
	AJ71QC24-R2 *4	RS-232	RS-232
	AJ71QC24-R4 *4	RS-422	RS-422/485
	AJ71QC24N *4	RS-232	RS-422/485
	AJ71QC24N-R2 *4	RS-232	RS-232
	AJ71QC24N-R4 *4	RS-422	RS-422/485
	A1SJ71QC24 *4	RS-232	RS-422/485
	A1SJ71QC24-R2 *4	RS-232	RS-232
	A1SJ71QC24N *4	RS-232	RS-422/485
	A1SJ71QC24N-R2 *4	RS-232	RS-232
	AJ71UC24 *4 *6	RS-232	RS-422/485
MELSEC-A series A series Motion controller CPU	AJ71UC24 *4 *5	RS-232	RS-422/485
	A1SJ71UC24-R2 *5	RS-232	–
	A1SJ71UC24-R4 *5	RS-422/485	–
	A1SJ71C24-R2 *5	RS-232	–
	A1SJ71C24-R4 *5 *6	RS-422/485	–
	A1SCPUC24-R2 *5 *6	RS-232	–
	A2CCPUC24 *4	RS-232	RS-422/485

*1: RS-485 communication is not possible; therefore, A0J2-C214-S1 is not available.
When using A Series computer link (C24 modules) with QCPU/QnACPU, only the device ranges within QnACPU specifications are supported.
The following devices cannot be monitored:
· Devices that have been newly added to the QCPU/QnACPU.
· Latch relay (L) and step relay (S).
In the QCPU/QnACPU, the latch relay (L) and step relay (S) are separate devices from the internal relay (M), but the internal relay is nonetheless accessed when either the latch relay or step relay is specified.
· File register (R)
· Local devices
*2: With function version "A", CH1 or CH2 can be connected. With function version "B" or later, both CH1 and CH2 can be connected.
*3: Only CH2 can be connected.
*4: Either CH1 or CH2 can be connected.
*5: When connecting to A1SHCPU, A2SCPU(S1), A2SHCPU(S1), A1SJHCPU, A0J2HCPU, A171SHCPU(N), A172SHCPU(N), use computer link module software version U or later version.
*6: Computer link module/serial communication module operate within the range of devices available on AnACPU. (R device cannot be used.)

●For MELSECNET/10 connection

CPU series	MELSECNET/H / MELSECNET/10 modules	
	Optical loop	Coaxial BUS
MELSEC-Q series (Q mode)*1	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11
MELSEC-QnA series	AJ71QLP21 AJ71QLP21S A1SJ71QLP21 A1SJ71QLP21S	AJ71QBR11 A1SJ71QBR11
MELSEC-Q series (A mode) MELSEC-A series A series Motion controller CPU	AJ71LP21 A1SJ71LP21	AJ71BR11 A1SJ71BR11

*1: Use function version "B" or later for the CPU and MELSECNET/H network unit.

●For CC-Link (ID) connection *1

CPU series	CC-Link unit
MELSEC-Q series (Q mode)	QJ61BT11 QJ61BT11N
MELSEC-QnA series	AJ61QBT11 *2 A1SJ61QBT11 *2
MELSEC-Q series (A mode) MELSEC-A series A series Motion controller CPU	AJ61BT11 *2 A1SJ61BT11 *2

*1: This is a "Ver.1 intelligent device station" permitting monitoring by transient and cyclic communication. Cyclic communication restrictions exist, however, in the remote net Ver.2 mode, and in the remote net added mode. For details, refer to the user's manual for the CC-Link master/local unit being used.
*2: GOT can perform transient communication only with CC-Link units running function version "B" and software version "J" or later.

●For CC- Link (via G4) connection *1

CPU series	CC-Link unit	Peripheral device connection unit
MELSEC-Q series (Q mode)	QJ61BT11 QJ61BT11N	AJ65BT-G4-S3

*1: The GT11 can monitor only the master station.

●For Ethernet connection

CPU series	Ethernet module *1	
MELSEC-Q series (Q mode)	QJ71E71-100	
	QJ71E71-B5	
	QJ71E71-B2	
	QJ71E71	
MELSEC-QnA series	AJ71QE71N3-T	A1SJ71QE71N3-T
	AJ71QE71N-B5	A1SJ71QE71N-B5
	AJ71QE71N-B2	A1SJ71QE71N-B2
	AJ71QE71N-T	A1SJ71QE71N-T
	AJ71QE71N-B5T	A1SJ71QE71N-B5T
	AJ71QE71	A1SJ71QE71-B5
	AJ71QE71-B5	A1SJ71QE71-B2
MELSEC-Q series (A mode) MELSEC-A series A series Motion controller CPU	AJ71E71N3-T	A1SJ71E71N3-T
	AJ71E71N-B5	A1SJ71E71N-B5
	AJ71E71N-B2	A1SJ71E71N-B2
	AJ71E71N-T	A1SJ71E71N-T
	AJ71E71N-B5T	A1SJ71E71N-B5T
	AJ71E71-S3	A1SJ71E71-B5-S3
		A1SJ71E71-B2-S3

*1: When using an A-series Ethernet (E71 modules) with QCPU/QnACPU, only the device ranges within AnACPU specifications are supported except for the following devices.
· Devices that have been newly added to the QCPU/QnACPU.
· Latch relay (L) and step relay (S).
(At the QCPU/QnACPU, the latch relay (L) and step relay (S) are separate devices from the internal relay (M), but the internal relay is nonetheless accessed when either the latch relay or step relay is specified.)
· File register (R)
· Local devices

Connectable model list

[PLC/motion controller]

Other manufacturers' PLCs/motion controllers

Achieve maximum 115kbps high-speed communication with other manufacturers' PLCs via RS-232 communication. Having an RS-422 converter mounted, the standard RS-232 interface on the GT15 can be used as RS-422 interface. The GT11 model is embedded with both an RS-232 and RS-422 interface as standard.

Manufacturer		Model name	Computer link connection		CPU direct connection	
			RS-422	RS-232	RS-422	RS-232
OMRON	Micro PLC	CPM1A	×	○	×	×
		CPM1				○
		CPM2A				×
		CPM2C				○
	Small-sized PLC	C200H	○			×
		C200HS				
		C200HX				○
		C200HG				
		C200HE				×
		CQM1	×	×		
		CQM1H				
		CS1H	○	○		○
		CS1J				
		CS1D				
		CJ1H	○*1			
		CJ1G				
		CJ1M				
	Large-sized PLC	C1000H				×
		C2000H				
		CV500	×	×	○*1	
		CV1000				
		CV2000				
		CVM1				
SHARP		JW-21CU	○	×	×	×
		JW-31CUH				
		JW-50CUH				
		JW-22CU	○	×	○*1	
		JW-32CUH				
		JW-33CUH				
		JW-70CUH				
		JW-100CUH				
		JW-100CU				
		Z-512J	×	×	○*1	
TOSHIBA	PROSEC T series	T2 (PU224)	○		○	×
		T2E	×	×	○*1	
		T2N			○*1	
		T3	○		○	×
		T3H	○		○	×
	V series	model 3000 (S3)	×	×	○	×
		model 2000 (S2)				
Hitachi Industrial Equipment Systems	Large-sized H series	H-302 (CPU2-03H)	○*1		×	○
		H-702 (CPU2-07H)				
		H-1002 (CPU2-10H)				
		H-2002 (CPU2-20H)				
		H-4010 (CPU3-40H)				
		H-300 (CPU-03Ha)				
		H-700 (CPU-07Ha)				
		H-2000 (CPU-20Ha)				
	H200 to 252 series	H-200 (CPU-02H, CPE-02H)	×	×	×	○
		H-250 (CPU21-02H)				
		H-252 (CPU22-02H)				
		H-252B (CPU22-02HB)				
		H-252C (CPU22-02HC)				
		H-252C (CPE22-02HC)				
	H series board type	H-20DR	×	×	×	○
		H-28DR				
		H-40DR				
		H-64DR				
		H-20DT				
		H-28DT				
		H-40DT				
		H-64DT				
		HL-40DR				
		HL-64DR				
	EH-150 series	EH-CPU104	×	×	×	○
		EH-CPU208				
		EH-CPU308				
		EH-CPU316				

Manufacturer		Model name	Computer link connection		CPU direct connection	
			RS-422	RS-232	RS-422	RS-232
Matsushita Electric Works		FP0-C16CT	×	×	×	○
		FP0-C32CT				
		FP1-C24C				
		FP1-C40C				
		FP2	×	○	×	○
		FP2SH				
		FP3				
		FP5				
		FP10 (S)				
		FP10SH				
		FP-M (C20TC)	×	×	×	○
		FP-M (C32TC)				
Yaskawa Electric		GL120	○	×	×	○
		GL130				
		GL60S		○		×
		GL60H				
		GL70H				
		CP-9200SH	×	○	○	×
		CP-9300MS		×		○
		MP-920/930				
		MP-940				
		PROGIC-8				
		CP-9200 (H)			×	
Yokogawa Electric	FA500	FA500	○*1		×	×
	FA-M3	F3SP05	○	×	×	○
		F3SP08				
		F3SP10	×			×
		F3SP20				
		F3SP30				
		F3FP36				
		F3SP21				
		F3SP25	○	○	×	
		F3SP35				
		F3SP28				○
		F3SP38				
		F3SP53				
		F3SP58				
		F3SP59				
Allen-Bradley (Rockwell)	SLC 500 series *2	SLC500-20	×	×	×	○
		SLC500-30				
		SLC500-40				
		SLC5/01				
		SLC5/02				
		SLC5/03				
		SLC5/04				
		SLC5/05				
	MicroLogix 1000 series (Digital CPU) *2	1761-L10BWA				
		1761-L10BWB				
		1761-L16AWA				
		1761-L16BWA				
		1761-L16BWB				
		1761-L16BBB				
		1761-L32AWA				
		1761-L32BWA				
		1761-L32BWB				
		1761-L32BBB				
		1761-L32AAA				
	MicroLogix 1000 series (Analogue CPU) *2*3*4	1761-L20AWA-5A				
		1761-L20BWA-5A				
		1761-L20BWB-5A				
	MicroLogix 1200 series *2	1762-L24BWA				
	MicroLogix 1500 series *2	1764-LSP				
SIEMENS		SIMATIC S7-300 series	×	×	×	○
		SIMATIC S7-400 series				

*1: RS-422 or RS-232 is selectable.
*2: Connection to DH485 network possible via adaptor (1770-KF3).
*3: Connection to DH485 requires a "Series-C" or later CPU. ("Series-B" and earlier models do not support the DH485 protocol.)
*4: A one-to-one connection requires a "Series-D" or later CPU. ("Series-C" and earlier models do not support the DF1 half-duplex format.)

■Modules that can be connected to other manufacturer's computer link module

Manufacturer	RS-422	RS-232	
OMRON Upper-level link unit, communication unit, communication board	C200H-LK202-V1 C500H-LK201-V1 CQM1-SCB41 CJ1W-SCU41 CS1W-SCB41 C200HW-COM03 C200HW-COM06	C200H-LK201-V1 C500H-LK201-V1 CS1W-SCU21 CS1W-SCB21 CS1W-SCB41 CJ1W-SCU41 C200HW-COM02 C200HW-COM05	C200HW-COM06 CQM1-CIF01 CQM1-CIF02 CQM1-SCB41 CPM1-CIF01 CPM2C-CN111 CPM2C-CIF01-V1
SHARP Link unit	JW-21CM ZW-10CM JW-10CM	—	

Manufacturer	RS-422	RS-232	
Hitachi Industrial Equipment Systems Intelligent serial port module	COMM-H COMM-2H	COMM-H COMM-2H	
Matsushita Electric Works Computer communication unit	—	AFP2462 AFP3462	AFP5462
Yaskawa Electric Memo BUS module	JAMSC-120NOM27100 CP-217IF JAMSC-IF612	JAMSC-IF60 CP-217IF JAMSC-IF61	
Yokogawa Electric Personal computer link module	LC02-0N F3LC11-2N	LC01-0N F3LC11-1N LC02-0N F3LC11-1F F3LC01-1N F3LC12-1F	

[Servo amplifiers]

Mitsubishi servo amplifiers

Sets and displays parameter when connected to the GOT.

Series	Model	RS-232	RS-422
MELSERVO-J2-super series	MR-J2S-□A	○	○
	MR-J2S-□CP		

Series	Model	RS-232	RS-422
MELSERVO-J2M series	MR-J2M-P8A	○	○
	MR-J2M-□DU		

Connection configuration

To achieve optimum performance, take into consideration: connection specifications (example QBUS vs. Serial RS232), the distance requirements (distance to first terminals connection, total overall distance and distance between terminals) and number of GOT terminals required.

Bus connection

Touch switches achieves as quick response as pushbuttons.

●QCPU (Q mode) / Q series Motion controller CPU

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
GT15	Bus connection unit GT15-75QBUSL*2 GT15-75QBUS2L*2 GT15-QBUS *2*4 GT15-QBUS2 *2*4	Bus connection cable GT15-QC□B GT15-QC□BS	5 units Maximum connection distance 37m	QCPU (Q mode) Q series Motion Controller CPU

●QnA / ACPU

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
GT15	Bus connection unit GT15-75ABUSL*3 GT15-75ABUS2L*3 GT15-ABUS *3*4 GT15-ABUS2 *3*4	Bus connection cable GT15-C□NB GT15-AC□B GT15-A1SC□B GT15-A1SC□NB GT15-C□EXSS-1*1 GT15-C□BS GT15-J2C□B	3 units (2 units AnN,(AnSH),A1SJ(H); 1 unit A0J2HCPU) Maximum connection distance 36.6m when connected with QnACPU type/AnCPU type 36m when connected with QnASCPU type/AnSCPU type	QnA / ACPU

●A series Motion controller CPU

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
GT15	Bus connection unit GT15-75ABUSL*3 GT15-75ABUS2L*3 GT15-ABUS *3*4 GT15-ABUS2 *3*4	Bus connection cable GT15-C□NB GT15-AC□B GT15-A370C□B-S1 GT15-A370C□B GT15-A1SC□B GT15-C□EXSS-1*1 GT15-C□BS	3 units (2 units A171SHCPUN, A172SHCPUN) Maximum connection distance 36.6m when connected with A273UCPU/A273UHCPU(-S3) /A373UCPU(-S3): with extension base 32.5m when connected with A273UCPU/A273UHCPU(-S3) /A373UCPU(-S3): without extension base 33m when connected with A171SHCPUN/A172SHCPUN/ A173UHCPU(-S1): with extension base 30m when connected with A171SHCPUN/A172SHCPUN/ A173UHCPU(-S1): without extension base	A series Motion Controller CPU

*1: See the external dimensions information (page 42 and following) for the GT15-C□EXSS-1 cable shape.
*2: Use of the Gateway function requires the GT15-QBUS (2). Note that the GT15-75QBUS (2) L cannot be used.
*3: Use of the Gateway function requires the GT15-ABUS (2). Note that the GT15-75ABUS (2) L cannot be used.
*4: Available soon.

Refer to Bus connection on page 30 and following for details.

CPU direct connection

MELSEC-Q/QnA/A/FX series can be connected via CPU direct connection at the lowest cost.

●QCPU / Q series Motion controller CPU

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
RS-232: GT15 / GT11	Embedded in GOT	RS-232 cable GT01-C□R2-6P 30: 3m	1 unit Maximum connection distance 3m	QCPU Q series Motion Controller CPU (CPU port: RS-232)
RS-422: GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable GT01-C□R4-25P 30: 3m 100: 10m 200: 20m 300: 30m RS-232/422 conversion cable FA-CNV□CBL*5 2402: 0.2m 2405: 0.5m	1 unit Maximum connection distance 30.5m	QCPU Q series Motion Controller CPU (CPU port: RS-232)
RS-422: GT11	Embedded in GOT			

●QnA / ACPU / A series Motion controller CPU

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
RS-422: GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable GT01-C□R4-25P 30: 3m 100: 10m 200: 20m 300: 30m	1 unit Maximum connection distance 30m	QnA / ACPU / A series Motion Controller CPU (CPU port: RS-422)
RS-422: GT11	Embedded in GOT			

*5: This item is developed by Mitsubishi Electric Engineering Company Limited and sold through your local sales office.

Connection configuration

●FX series (FX3UC)

		Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
RS-232	GT15, GT11	Embedded in GOT	RS-232 cable: GT01-C□R2-9S 30 : 3m	2 units when using the function extension board or the special adaptor specified on the right. (3 units when using RS-422 CPU port) / Maximum connection distance: 3m	FX series (FX3UC) (Function extension board (FX3U-232-BD) for RS-232) (Special adaptor (FX3U-232-ADP) for RS-232)*4
RS-422	GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable: GT01-C□R4-8P 10 : 1m 30 : 3m 100 : 10m 200 : 20m 300 : 30m	2 units when using the CPU port and the function extension board specified on the right. (3 units when using RS-232 special adaptor) / Maximum connection distance: 30m	FX series (FX3UC) (RS-422 CPU port) (Function extension board (FX3U-422-BD) for RS-422)
RS-422	GT11	Embedded in GOT			

●FX series (FX1S,FX1N,FX2N)

		Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
RS-232	GT15, GT11	Embedded in GOT	RS-232 cable: GT01-C□R2-9S 30 : 3m ①② / GT01-C□R2-25P 30 : 3m ③	1 unit when using the function extension board or the special adaptor specified on the right. (2 units when using RS-422 CPU port) / Maximum connection distance: 3m	FX series (FX1S, FX1N, FX2N) (Function extension board (FX□N-232-BD) for RS-232)① (Special adaptor (FX2NC-232-ADP) for RS-232)② *1 (Special adaptor (FX0N-232-ADP) for RS-232)③ *1
RS-422	GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable: GT01-C□R4-8P 10 : 1m 30 : 3m 100 : 10m 200 : 20m 300 : 30m	1 unit (2 units when using the function extension board (FX□N-422-BD)) / Maximum connection distance: 30m	FX series (FX1S, FX1N, FX2N) (RS-422 CPU port) (Function extension board (FX□N-422-BD) for RS-422)
RS-422	GT11	Embedded in GOT			

●FX series (FX1NC,FX2NC)

		Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
RS-232	GT15, GT11	Embedded in GOT	RS-232 cable: GT01-C□R2-9S 30 : 3m ① / GT01-C□R2-25P 30 : 3m ②	1 unit when using special adaptor specified on the right / (2 units when using RS-422 CPU port) / Maximum connection distance: 3m	FX series (FX1NC, FX2NC) (Special adaptor (FX2NC-232-ADP) for RS-232)① (Special adaptor (FX0N-232-ADP) for RS-232)②
RS-422	GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable: GT01-C□R4-8P 10 : 1m 30 : 3m 100 : 10m 200 : 20m 300 : 30m	1 unit (2 units when using RS-232 special adaptor) / Maximum connection distance: 30m	FX series (FX1NC, FX2NC) (RS-422 CPU port)
RS-422	GT11	Embedded in GOT			

●FX series (FX0S,FX0N)

		Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
RS-422	GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable: GT01-C□R4-8P 10 : 1m 30 : 3m 100 : 10m 200 : 20m 300 : 30m	1 unit / Maximum connection distance: 30m	FX series (FX0S, FX0N) (RS-422 CPU port)
RS-422	GT11	Embedded in GOT			

*1: A Function extension board is required.

Computer link connection

Connects multiple GOTs easily via serial communication (connecting one or two GOTs with one computer link unit).

●QCPU (Q mode) / QnACPU / Q series Motion controller CPU

		Communication interface installed on GOT side	connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
RS-232	GT15, GT11	Embedded in GOT	RS-232 cable: To be fabricated by user. D-sub 9 pins (female) – D-sub 9 pins (male)	1 unit (2 units when QJ71C24N(-R2) is used) / Maximum connection distance: 15m	QCPU (Q mode) / QnASCPU type Q series Motion Controller (Serial communication unit)
RS-232	GT15, GT11	Embedded in GOT	RS-232 cable: To be fabricated by user. D-sub 9 pins (female) – D-sub 25 pins (male)	Maximum number of GOTs connected: 1 unit / Maximum connection distance: 15m	QnACPU type (Serial communication unit)
RS-422	GT15, GT11	RS-422 converter GT15-RS2T4-9P / Embedded in GOT	RS-422 cable: To be fabricated by user. D-sub 9 pins (male) – 4-CORE	Maximum number of GOTs connected: 1 unit (2 units when QJ71C24N(-R4) is used) / Maximum connection distance: 1200m (500m when A1SJ71UC24-R4 or A1SJ71C24-R4 is used.)	QCPU (Q mode) / QnASCPU type Q series Motion Controller (Serial communication unit)
RS-422	GT15, GT11	RS-422 converter GT15-RS2T4-9P / Embedded in GOT	RS-422 cable: GT01-C□R4-25P 30 : 3m 200:20m 100 : 10m 300:30m / Fabricated by user when length exceeds 30m. D-sub 9 pins (male) – 4-CORE	Maximum number of GOTs connected: 1 unit / Maximum connection distance: 1200m (500m when AJ71UC24 is used)	QnACPU type (Serial communication unit)

●QCPU (A mode) / ACPU / A series Motion controller CPU

		Communication interface installed on GOT side	connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
RS-232	GT15, GT11	Embedded in GOT	RS-232 cable: To be fabricated by user. D-sub 9 pins (female) – D-sub 9 pins (male) / D-sub 9 pins (female) – D-sub 25 pins (male)	1 unit / Maximum connection distance: 15m	QCPU (A mode) / ACPU / A series Motion Controller (Computer link unit)
RS-422	GT15, GT11	RS-422 converter GT15-RS2T4-9P / Embedded in GOT	RS-422 cable: To be fabricated by user. D-sub 9 pins (male) – 4-CORE	Maximum number of GOTs connected: 1 unit / Maximum connection distance: 500m	

MELSECNET/10 Connection (PC-to-PC Network)

Allows multiple GOTs to be used as remote control terminals. (Connectable as MELSECNET/10*2 normal stations.)

		Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected / Maximum connection distance	Connected to
Optical loop	GT15	MELSECNET/10 communication unit: GT15-75J71LP23-Z (Optical loop) GT15-75J71BR13-Z (Coaxial BUS)	Fiber-optic cable: Fiber-optic cable	63 units / Maximum connection distance: *3 (With QSI optical cable, maximum distance between stations is 1km)	QCPU QnA/ACPU (Control station/normal station)/ A series Motion Controller CPU
Coaxial BUS	GT15		Coaxial cable: Coaxial cable	Maximum number of GOTs connected: 31 units / Maximum connection distance: *3 (With 5C-2V coaxial cable, maximum distance between stations is 500m)	Network unit

*2: MELSECNET/H is also used in NET/10 mode.
*3: The maximum total extension length and distance between stations vary according to the number of stations and the cable type being used. For details, refer to the MELSECNET/H and MELSECNET/10 Reference Manuals.

Connection configuration

CC-Link (ID) connection

Connects CC-Link system as intelligent device station.*1

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
GT15	CC-Link communication unit GT15-75J61BT13-Z (For intelligent device station)	CC-Link dedicated cable	26 units (When transient transmitting suggested 5 or less GOTs) Maximum connection distance *2 (For CC-Link dedicated cable at 156kbps: 1200m)	QCPU QnA/ACPU (Master/local station) A series Motion Controller CPU CC-Link unit

*1: This is a "Ver.1 intelligent device station". Monitoring is possible via transient and cyclic communication. Cyclic communication restrictions exist, however, in the remote net Ver.2 mode, and in the remote net added mode. For details, refer to the user's manual for the CC-Link master/local unit being used.
*2: The maximum cable extension length and cable lengths between stations vary according to the type of cable being used and the transmission speed.

CC-Link (via G4) connection

Connectable to CC-Link by way of AJ65BT-G4-S3. *1

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable GT01-C□R4-25P 30 : 3m 100 : 10m 200 : 20m 300 : 30m Peripheral device connection unit for GPP function AJ65BT-G4-S3 CC-Link dedicated cable	1 unit Maximum connection distance *2 In the following cases: 1230m 1200m : CC-Link dedicated cable + 156Kbps 30m : RS-422 cable	QCPU (Q mode) Q series Motion controller CPU (RS-232CPU port) CC-Link unit
GT11	Embedded in GOT			

*1: GT11 can only monitor the master station.
*2: The maximum cable extension length and cable lengths between stations vary according to the type of cable being used and the transmission speed.
For details, refer to the user's manual for the CC-Link master/local unit being used.

Ethernet connection

Machines on the production floor can be easily accessed from a remote location (Remote Maintenance) when GOT terminals are fitted with an Ethernet interface.

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
GT15	Ethernet communication unit GT15-J71E71-100	Ethernet cable 10BASE-T cable 100BASE-TX cable	128 units (Suggested less than 16 GOTs) Maximum connection distance Maximum segment length 100m	QCPU QnA/ACPU A series Motion Controller CPU Ethernet unit

Connection to other manufacturer's PLC

Supporting other manufactuere's PLC CPU

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
RS-232 GT15 / GT11	Embedded in GOT	RS-232 cable To be fabricated by user. D-sub 9 pins (female) Depending on the PLC CPU specifications to which the GOT is connected.	1 unit Maximum connection distance Depending on the PLC CPU specifications to which the GOT is connected.	Compatible with the following other manufacturer's PLC CPUs • OMRON • SHARP • TOSHIBA • Hitachi Industrial Equipment Systems • Matsushita Electric Works • YASKAWA Electric • YOKOGAWA Electric • Allen-Bradley (Rockwell Automation) • SIEMENS AG
RS-422 GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable To be fabricated by user. D-sub 9 pins (male) Depending on the PLC CPU specifications to which the GOT is connected.	1 unit Maximum connection distance Depending on the PLC CPU specifications to which the GOT is connected.	Compatible with the following other manufacturer's PLC CPUs • OMRON • SHARP • TOSHIBA • Hitachi Industrial Equipment Systems • YASKAWA Electric • YOKOGAWA Electric
GT11	Embedded in GOT			

For details, refer to the "Connectable model list" on page 24.

Microcomputer connection

Connects microcomputer board or personal computer to the GOTs.

Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
RS-232 GT15 / GT11	Embedded in GOT	RS-232 cable To be fabricated by user. D-sub 9 pins (female) Depending on the PLC CPU specifications to which the GOT is connected.	1 unit Maximum connection distance Depending on the specifications of the host side personal computer, microcomputer board, PLC, and etc.	Personal computer, microcomputer board, PLC, and etc.
RS-422 GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable To be fabricated by user. D-sub 9 pins (male) Depending on the PLC CPU specifications to which the GOT is connected.	Maximum number of GOTs connected 1 unit Maximum connection distance Depending on the specifications of the host side personal computer, microcomputer board, PLC, and etc.	
GT11	Embedded in GOT			

Servo amplifier connection

Sets parameter and displays alarms of servo amplifier.

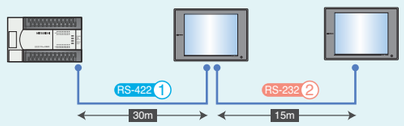
Connection configuration	Communication interface installed on GOT side	Connection cable	Maximum number of GOTs connected	Connected to
RS-232 GT15 / GT11	Embedded in GOT	RS-232 cable MR-CPCATCBLM 3m Fabricated by user when length exceeds 3m.	1 unit Maximum connection distance 15m	Servo amplifier MELSERVO-J2-Super series MELSERVO-J2M series
RS-422 GT15	RS-422 converter GT15-RS2T4-9P	RS-422 cable To be fabricated by user.	Maximum number of GOTs connected 1 unit Maximum connection distance 30m When servo amplifiers are connected in a multidrop configuration, the maximum total extension length is 30m	Servo amplifier MELSERVO-J2-Super series MELSERVO-J2M series
GT11	Embedded in GOT			

Multiple unit connections (GT11)

When connected directly to Mitsubishi PLC and CPU — Maximum number of GOTs: 2 units

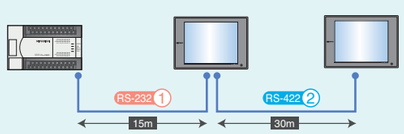
- The transparent function is not available when multiple units are connected.
- Multiple units cannot be connected using the USB interface.

When the first device is connected via RS-422 connection



Connected PLCs	RS-422 cable 1	RS-232 cable 2
A/QnACPU	GT01-C30R4-25P (3m) GT01-C100R4-25P (10m) GT01-C200R4-25P (20m) GT01-C300R4-25P (30m)	GT01-C30R2-9S (3m)
QJ71C24, QJ71C24N, QJ71C24N-R4	Fabricated by user.	
FX1S/FX1NCPU or FX1S+FX1N-422BD/FX1N+FX1N-422BD	GT01-C10R4-8P (1m) GT01-C30R4-8P (3m) GT01-C100R4-8P (10m) GT01-C200R4-8P (20m) GT01-C300R4-8P (30m)	
FX2NCPU or FX2N+FX2N-422BD		
FX1NC / FX2NCCPU		
FX3UCCPU or FX3UC+FX3U-422BD		

When the first device is connected via RS-232 connection



Connected PLCs	RS-232 cable 1	RS-422 cable 2
QCPU	GT01-C30R2-6P (3m)	Fabricated by user.
QJ71C24, QJ71C24N, QJ71C24-R2, QJ71C24N-R4	Fabricated by user.	
FX1S+FX1N-232BD / FX1N+FX1N-232BD or FX1S+FX2NC-232ADP / FX1N+FX2NC-232ADP*1	GT01-C30R2-9S (3m)	
FX2N+FX2N-232BD or FX2N+FX2NC-232ADP*1		
FX1NC+FX2NC-232ADP / FX2NC+FX2NC-232ADP		
FX3UC+FX3U-232BD or FX3UC+FX3U-232ADP*1		

*1: A function extension board is required.

BUS connection 1

BUS connection is one of the simplest methods to connect one or even multiple GOT's using extension connectors of the base unit. This connection method provides high performance as well as the fastest response time to Mitsubishi controllers. This solution allows multiple GOTs terminals to be located when computer link (C24) is not desired (refer to Notes for BUS connection on page 38).

When connected with QCPU (Q mode) Q series Motion controller CPU

Maximum number of GOTs connected: 5 units

For connectable CPU models, refer to "Connectable mode list" on page 22.

GOT connection conditions		System configuration	BUS extension connector box *2	Cable 1 *4	GOT 1	Cable 2 *4	Middle GOT 2~4	Cable 3 *4	Last GOT 2~5
Number of GOTs	Installation distance of the first unit from main base *1	Connection distance			GOT main unit / BUS connection unit		GOT main unit / BUS connection unit		GOT main unit / BUS connection unit
1 unit	Within 13.2m	0m – 13.2m: PLC Main base, PLC Extension base, GOT 1, Cable 1; Max. 13.2m *1		GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUSL, GT15-75QBUS2L, GT15-QBUS, GT15-QBUS2				
	More than 13.2m	0m – 37m: PLC Main base, BUS extension connector box *2, PLC Extension base, GOT 1, Cable 1; Max. 37m *3	A9GT-QCNB	GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m; GT15-QC□BS 150 : 15m, 200 : 20m, 250 : 25m, 300 : 30m, 350 : 35m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUSL, GT15-75QBUS2L, GT15-QBUS, GT15-QBUS2				
2 to 5 units	Within 13.2m	0m – 37m: PLC Main base, PLC Extension base, GOT 1, Middle GOT 2~4, Last GOT 2~5, Cable 1, Cable 2, Cable 3; Max. 13.2m *1; Max. 37m *3		GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUS2L, GT15-QBUS2	GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m; GT15-QC□BS 150 : 15m, 200 : 20m, 250 : 25m, 300 : 30m, 350 : 35m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUS2L, GT15-QBUS2	GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m; GT15-QC□BS 150 : 15m, 200 : 20m, 250 : 25m, 300 : 30m, 350 : 35m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUSL, GT15-75QBUS2L, GT15-QBUS, GT15-QBUS2
	More than 13.2m *5	0m – 37m: PLC Main base, BUS extension connector box *2, PLC Extension base, GOT 1, Middle GOT 2~4, Last GOT 2~5, Cable 1, Cable 2, Cable 3; Max. 37m *3	A9GT-QCNB	GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m; GT15-QC□BS 150 : 15m, 200 : 20m, 250 : 25m, 300 : 30m, 350 : 35m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUS2L, GT15-QBUS2	GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m; GT15-QC□BS 150 : 15m, 200 : 20m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUS2L, GT15-QBUS2	GT15-QC□B 06 : 0.6m, 12 : 1.2m, 30 : 3m, 50 : 5m, 100: 10m; GT15-QC□BS 150 : 15m, 200 : 20m	12.1" type GT1585, 10.4" type GT1575, 8.4" type GT1565 / GT15-75QBUSL, GT15-75QBUS2L, GT15-QBUS, GT15-QBUS2

*1: Includes the extension cable length (between base units) when an extension base unit is used. For cable details between main base and extension bese, refer to the MELSEC-Q catalog (L (NA) 08033E-A).

*2: A BUS extension connector box is required if the first GOT is installed at a distance of 13.2m or more. If an extension base unit is not being used, install the BUS extension connector box at the main base unit. If an extension base unit is being used, install the BUS extension connector box at the extension base unit of the stage that precedes the GOT. (When connected to a Q00JCPU, the box installation at the main base unit is not possible. In this case, install it at the extension base unit.)

*3: Select cables whose total cable length is 37m or less from the PLC's main base unit to the last GOT.

*4: How to read cable type names, for example, QC□B 06: 0.6m is GT15-QC06B.

*5: When 3 or more GOTs are connected, the following restrictions may be applied, depending on the total cable length: The PLC and all GOTs must have the same power supply and must be switched ON and OFF simultaneously

○: Restriction not applied △: Restriction applied

Number of GOTs	Total cable length			
	Within 15m	Within 20m	Within 25m	Within 37m
2 or less	○	○	○	○
3	○	○	○	△
4	○	○	△	△
5	○	△	△	△

When connected with QnACPU type AnCPU type

When QnA, AnU, or AnA is connected: Maximum number of GOTs connected 3 units

When CPUs other than that shown at left is connected: Maximum number of GOTs connected 2 units

For connectable CPU models, refer to "Connectable mode list" on page 22.

GOT connection condition		System configuration	Cable 0	BUS connector conversion box	Cable 1	GOT 1	Cable 2	GOT 2	Cable 3	GOT 3
Number of GOTs	Installation distance of the first unit from main base *1	Connection distance	*5		*5	GOT main unit / BUS connection unit	*5	GOT main unit / BUS connection unit	*5	GOT main unit / BUS connection unit
1 unit	Within 6.6m	0m – 6.6m: PLC Main base, PLC Extension base, GOT 1, Cable 1; Max. 6.6m *1			GT15-C□NB 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
	More than 6.6m	0m – 6.6m – 36.6m: PLC Main base, PLC Extension base, BUS connector conversion box *2, GOT 1, Cable 0, Cable 1; Max. 6.6m *1, Max. 30m, Max. 36.6m *3	GT15-AC□B 06 : 0.6m 12 : 1.2m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1 *4 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
2 unit	Within 6.6m	0m – 6.6m – 36.6m: PLC Main base, PLC Extension base, GOT 1, GOT 2, Cable 1, Cable 2; Max. 6.6m *1, Max. 30m, Max. 36.6m *3			GT15-C□NB 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
	More than 6.6m	0m – 6.6m – 36.6m: PLC Main base, PLC Extension base, BUS connector conversion box *2, GOT 1, GOT 2, Cable 0, Cable 1, Cable 2; Max. 6.6m *1, Max. 30m, Max. 36.6m *3	GT15-AC□B 06 : 0.6m 12 : 1.2m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1 *4 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
3 unit	Within 6.6m	0m – 6.6m – 36.6m: PLC Main base, PLC Extension base, GOT 1, GOT 2, GOT 3, Cable 1, Cable 2, Cable 3; Max. 6.6m *1, Max. 30m *6, Max. 36.6m			GT15-C□NB 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2

*1: Includes the extension cable length (between base units) when an extension base unit is used.
For the cables between base unit and extension base unit, refer to the MELSEC-QnA/A catalog (L-174-0-C5177-B NA-0109).
*2: A BUS connector conversion box is required if the first GOT is installed at a distance of 6.6m or more.
*3: Select cables so that the total cable length is 36.6m from the PLC's main base unit to the last GOT.
*4: GT15-C□EXSS-1:
• Comprises the GT15-EXCNB (0.5m) and the GT15-C□BS (10 to 30m).
• Calculate cable lengths as follows:
GT15-C100EXSS-1 : 10m
GT15-C200EXSS-1 : 20m
GT15-C300EXSS-1 : 30m
*5: Cable length can be read from cable model name. For example, "GT15-AC06B" is 0.6m long.
*6: Select cables so that the total cable length does not exceed 30m.

When connected with QnASCPU type AnSCPU type | Without extension base unit

When QnAS or A2US(H) is connected: Maximum number of GOTs connected 3 units

When A1SJ(H) or AnS(H) CPU is connected: Maximum number of GOTs connected 2 units

For connectable CPU models, refer to "Connectable mode list" on page 22.

GOT connection conditions		System configuration	Cable 0	BUS connector conversion box	Cable 1	GOT 1	Cable 2	GOT 2	Cable 3	GOT 3
Number of GOTs	Installation distance of the first unit from main base	Connection distance				GOT main unit / BUS connection unit		GOT main unit / BUS connection unit		GOT main unit / BUS connection unit
1 unit	Within 5 m	0m 5m 30m 35m PLC Main base, GOT 1, Cable 1, Max. 5m			GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
	More than 5 m Within 35 m	PLC Main base, GOT 1, Cable 1, Max. 30m			GT15-C□EXSS-1*4 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
	More than 5 m Within 35 m	PLC Main base, BUS connector conversion box *1, GOT 1, Cable 0, Cable 1, Max. 5m, Max. 30m, Max. 35m *2	GT15-A1SC□NB 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1*4 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
2 unit	Within 5 m	PLC Main base, GOT 1, GOT 2, Cable 1, Cable 2, Max. 5m, Max. 30m, Max. 35m *2			GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
	More than 5 m	PLC Main base, GOT 1, GOT 2, Cable 1, Cable 2, Max. 30m *3			GT15-C□EXSS-1*4 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
	More than 5 m Within 35 m	PLC Main base, BUS connector conversion box *1, GOT 1, GOT 2, Cable 0, Cable 1, Cable 2, Max. 5m, Max. 30m *3, Max. 35m	GT15-A1SC□NB 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1*4 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
3 unit	Within 5 m	PLC Main base, GOT 1, GOT 2, GOT 3, Cable 1, Cable 2, Cable 3, Max. 5m, Max. 30m *3, Max. 35m			GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2

*1: A BUS connector conversion box is required if only one GOT is connected at a distance of 30m or more.
*2: Select cables so that the total cable length is 35m or less from the PLC's main base unit to the last GOT.
*3: Select cables so that the total cable length does not exceed 30m.
*4: GT15-C□EXSS-1:
• Comprises the GT15-EXCNB (0.5m) and the GT15-C□BS (10 to 30m).
• Calculate cable lengths as follows: GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), GT15-C300EXSS-1 (30m).
*5: Cable length can be read from cable model name. For example, "GT15-A1SC□NB" is 0.45m long.

When connected with QnASCPU type AnSCPU type

With extension base unit

Maximum number of GOTs connected: 3 units

For connectable CPU models, refer to "Connectable mode list" on page 22.

GOT connection conditions		System configuration	Cable 0 *5	BUS connector conversion box *2	Cable 1 *5	GOT 1	Cable 2 *5	GOT 2	Cable 3 *5	GOT 3
Number of GOTs	Installation distance of the first unit from main base	Connection distance: 0m / 6m / 36m				GOT main unit / BUS connection unit		GOT main unit / BUS connection unit		GOT main unit / BUS connection unit
1 unit	Within 6 m	PLC Extension base, PLC Main base, GOT 1, Cable 1, Max. 6m *1			GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2				
	More than 6 m	PLC Extension base, PLC Main base, GOT 1, Cable 1, Max. 30m, Max. 36m *1*3			GT15-C□EXSS-1 *4 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2				
		PLC Extension base, PLC Main base, BUS connector conversion box *2, GOT 1, Cable 0, Cable 1, Max. 6m *1, Max. 36m *1*3, Max. 30m	GT15-A1SC□NB 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1 *4 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2				
2 unit	Within 6 m	PLC Extension base, PLC Main base, GOT 1, GOT 2, Cable 1, Cable 2, Max. 6m *1, Max. 36m *1*3, Max. 30m			GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m 300 : 30m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
	More than 6 m	PLC Extension base, PLC Main base, GOT 1, GOT 2, Cable 1, Cable 2, Max. 30m, Max. 36m *1*3			GT15-C□EXSS-1 *4 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
		PLC Extension base, PLC Main base, BUS connector conversion box *2, GOT 1, GOT 2, Cable 0, Cable 1, Cable 2, Max. 6m *1, Max. 36m *1, Max. 30m *6	GT15-A1SC□NB 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1 *4 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2		
3 unit	Within 6 m	PLC Extension base, PLC Main base, GOT 1, GOT 2, GOT 3, Cable 1, Cable 2, Cable 3, Max. 6m *1, Max. 36m, Max. 30m *6			GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUS2L GT15-ABUS2	GT15-C□BS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2

*1: Includes the extension cable length (between base units).
For "main base unit ⇔ extension base unit" cable details, refer to the MELSEC-QnA/A catalog (L-174-0-C5177-B NA-0109).

*2: A BUS connector conversion box is required if the first GOT is installed at a distance of 30m or more.

*3: Select cables so that the total cable length is 36m or less from the PLC to the last GOT.

*4: GT15-C□EXSS-1:
- Comprises the GT15-EXCNB (0.5m) and the GT15-C□BS (10 to 30m).
- Calculate cable lengths as follows: GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), GT15-C300EXSS-1 (30m).

*5: Cable length can be read from cable model name. For example, "GT15-A1SC□NB" is 0.45m long.

*6: Select cables so that the total cable length does not exceed 30m.

When connected with A0J2HCPU

Maximum number of GOTs connected: 1 unit

For connectable CPU models, refer to "Connectable mode list" on page 22.

GOT connection conditions		System configuration	Cable 0 / Power supply unit	Cable 1	GOT 1	Cable 2	GOT 2	Cable 3	GOT 3
Number of GOTs	Installation distance of the first unit from main base	Connection distance (0m – 1m)	*2 / *1	*2	GOT main unit / BUS connection unit	GOT main unit / BUS connection unit	GOT main unit / BUS connection unit	GOT main unit / BUS connection unit	GOT main unit / BUS connection unit
1 unit	Within 1 m	PLC, Power supply unit *1, GOT 1, Cable 1, Cable 0, Max. 1m, Max. 6m	A0J2C□ 03: 0.3m (for horizontal installation) 06: 0.55m (for vertical installation) 10: 1m (for extension) 20: 2m (for extension) A0J2-PW	GT15-J2C10B 10 : 1m	12.1" type GT1585 10.4" type GT1575 8.4" type GT1565 GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2				

*1: The power supply unit is required for connecting GOT.
*2: Cable length can be read from cable model name. For example, "GT15-J2C10NB" is 1m long.

For details regarding connection to an A series motion controller, refer to the "GOT1000 series Connection Manual" (SH (NA)-080532ENG).

"Number of GOT extension stages" and "slot No." settings

1. Controller and recognition of GOT

When GOT uses a BUS, the CPU recognizes GOT as follows:
- QCPU (Q mode) : Intelligent function unit with 16 I/O points.
- Other than QCPU (Q mode): Intelligent function unit with 32 I/O points.

2. I/O assignment

(1) For connection to the QCPU (Q mode)

Install 1 extension stage (16 points x 10 slots) for a GOT connection. (GOT cannot be assigned to a vacant I/O slot at the main base or any extension base.)

Reference See the "Precautions" section, item 9 (For Q mode connection).

Note By setting I/O slots that are not used for GOT as vacant (0 point), "16 points x 1 vacant slot" I/O numbers can be used for other devices.
(This setting is specified in the GX Developer's [PLC parameter setting] - [I/O assignment setting].)

(2) For other PLCs connection

Assign the GOT to a vacant I/O slot at the extension base.

If there is no extension base, or if the extension base has no vacant slots, install another extension stage, and assign GOT to an I/O slot there. (GOT cannot be assigned to a main base I/O slot.)

Reference See the "Precautions" section, item 10 (For connection to QnA(S)CPU type and An(S)CPU type).

Precautions

1. At GOT power ON

(1) System construction

While PLC CPU is in reset status until the GOT is started, sequence program will not starts. It is not possible to construct a system in which the sequence program turns the GOT power ON.

(2) Time period from GOT power ON to PLC run status

A PLC run starts approximately 10 seconds after the GOT starts up following a GOT power ON. When installing a new GOT in an existing system, or when replacing an existing GOT, the system timing should be adjusted to allow for this 10-second PLC startup delay.

(3) Power ON order when 3 or more GOTs are connected (for QCPU (Q mode) connection)

Reference See item 9. (1) "Total cable length restriction when connecting multiple GOTs"

(4) Power ON order when connected to a Q4ARCPU redundant system

Reference See item 13. (2) "Power ON order for GOT and Q4ARCPU redundant system"

(5) GOT and PLC power ON order in systems other than those described in items (3) and (4) above

The system can be started regardless of whether the GOT power or the PLC power is turned ON first. There is no specified power ON order for GOT and the PLC. However, if a GOT→ PLC power ON order is used, operation occurs as follows.

A system alarm (No.402: time-out error) occurs if the PLC is OFF when the GOT power is turned ON. GOT automatically begins monitoring after the PLC CPU is turned ON. Use the system information to reset the alarm.

2. At GOT restarts (OFF→ON)

(1) GOT restart (OFF→ON) precaution

Do not restart GOT (OFF→ON) while the PLC power is ON. Before restarting GOT (OFF→ON), always be sure to turn the PLC power OFF.

Reference GOT1000 series automatic reboot operation

Because GOT1000 series automatically reboot at the conditions of OS installation and Utility setting changes, there is no need for a GOT restart (OFF→ON).
- When an OS installation occurs from GT Designer2 or from the CF card.
- When the utility setting content is changed.

(2) When GOT power is turned OFF before the user created screens are displayed on GOT

Communication may stop if the GOT power is turned OFF before the user created screens are displayed.If this occurs, restart the PLC CPU and GOT.

(3) Power ON order when 3 or more GOTs are connected (for QCPU (Q mode) connection)

Reference See item 9. (1) "Total cable length restriction when connecting multiple GOTs"

3. The GOT's reset switch

The reset switch on the GOT is disabled when using a BUS connection.

4. At PLC power OFF or reset

(1) When a PLC power OFF or reset occurs during monitoring

A system alarm (No.402: time-out error) occurs if a PLC power OFF or reset occurs during monitoring. GOT automatically resumes monitoring when a PLC CPU recovery occurs. Use the system information to reset the alarm.

(2) When a PLC CPU power OFF or reset occurs before the user created screens are displayed on GOT

Communication may stop if a PLC CPU power OFF or reset occurs before the user created screens are displayed on GOT. If this occurs, restart the PLC CPU and GOT.

(3) Power ON order when 3 or more GOTs are connected (for QCPU (Q mode) connection)

Reference See item 9. (1) "Total cable length restriction when connecting multiple GOTs"

5. GOT connection position

The GOT must always be connected to the last extension of a system. GOT cannot be connected between stages.

6. When GOT is BUS-connected to a PLC CPU without having installed a PC communication driver

A PLC CPU reset status occurs when GOT is BUS-connected to a PLC CPU without having installed (at GOT) the basic function OS and PC communication driver for the BUS (communication with the PLC CPU using GX Developer, etc., is disabled).
If the above occurs, disconnect GOT's BUS connection cable to clear the PLC CPU's reset status.

7. System design

When the GOT power is turned OFF, the current consumption values shown below are supplied to GOT from the PLC CPU side (power supply unit at main base unit). (GOT operation is disabled when the GOT power is OFF.) Be sure to design the system so that the "5VDC current consumption of the unit installed at the main base unit" and the "GOT current consumption" total value does not exceed the 5VDC rated output of the power supply unit being used.

Connection target CPU	Number of GOTs	Total current consumption
When using Q CPU (Q mode)	5 units	2200mA
	4 units	1760mA
	3 units	1320mA
	2 units	880mA
	1 units	440mA
For other than QCPU (Q mode) connections	3 units	360mA
	2 units	240mA
	1 units	120mA

8. When assigning GOT input/output signals

Do not use a sequence program, etc., in an attempt to use input/output signals (assigned to the PLC CPU) to the GOT system. If this is attempted, GOT operation cannot be guaranteed.

9. When using QCPU (Q mode)

(1) Total cable length restriction when connecting multiple GOTs

The following restrictions apply when 3 or more GOTs are connected

Number of GOTs	Total cable length			
	Within 15m	Within 15 to 20m	Within 20 to 25m	Within 25 to 37m
1 unit	○	○	○	○
2 units	○	○	○	○
3 units	○	○	○	△
4 units	○	○	△	△
5 units	○	△	△	△

○: Restriction does not apply
△: The PLC and all GOTs must have the same power supply, and must all switch ON and OFF simultaneously

(2) When using Q00JCPU

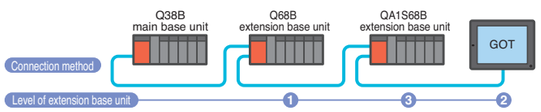
The BUS extension connector box can be installed only at an extension base unit. (It cannot be installed at the main base unit.)

(3) When using Q00J/Q00/Q01CPU

When connected to Q00JCPU by a BUS connection, the number of extension stages (including GOT) must not exceed 2.
When connected to Q00CPU, Q01CPU by a BUS connection, the number of extension stages (including GOT) must not exceed 4.

(4) When using the QA1S6□B type extension base unit

Although GOTs can be connected to the last stages of all extension base units, the "number of GOT extension stages" setting must be assigned at the end of the Q□□B extension base units.
The "number of extension stages" for the QA1S6□B extension base unit is assigned at the last stage of the "number of GOT extension stages".



10. For connection to the QnA(S)CPU and An(S)CPU types

(1) For connection to the QnASCPU and AnSCPU types

GOT can be connected only at one of the main base unit's extension connectors. (Concurrent GOT connections at both the extension connectors is not permitted.)

(2) For Q4A(R)CPU, Q3ACPU, A3□CPU, and A4UCPU

A vacant I/O slot is required within the "maximum number of extension stages" range.

(3) For A0J2HCPU

Assign GOT to I/O slots 0 to 3 at the first extension stage.

(4) For CPUs other than items (2) and (3) above

Even if the maximum number of extension stages are being used, and there are no vacant slots, a GOT can be connected by using the following communication interface settings, provided that there are 32 or more vacant I/O points.

Connection target CPU	Max. number of the extension base units	Communication interface setting	
		No. of Extension Stages	Slot No.
A1□CPU/A2USCPU(-S1)	1	2	0
A2□CPU/Q2ACPU	3	4	0
A3□CPU/A4□CPU	7	Use is prohibited	
Q3ACPU/Q4ACPU	7		
A0J2HCPU	1		

11. When multiple GOTs are connected

(1) Composite GOT system

GOTs other than the GOT1000 Series cannot be used together with GOT1000 series.

(2) GOT quantity restriction

The number of GOTs that can be connected is limited according to the connection target CPU and number of special function units which are installed.

Connection target CPU		Number of GOTs that can be connected	Total Permissible GOT + Intelligent Function Unit*1 Connections
QCPU (Q mode), motion controller CPU (Q series)		Max. 5 units	5 GOTs + 6 intelligent function units*2
QCPU (A mode)		Connection prohibited	–
QnACPU		Max. 3 units	Total 6 units*3
ACPU	AnUCPU,AnACPU,A2US(H)CPU	Max. 3 units	Total 6 units
	AnNCPU,AnS(H)CPU,A1SJ(H)CPU	Max. 2 units	Total 2 units
	A0J2HCPU	Max. 1 unit	Total 2 units
	A1FXCPU	Connection prohibited	–
Motion controller CPU (A series)	A273UCPU,A273UHCPU(-S3), A373UCPU(-S3),A173UHCPU(-S1)	Max. 3 units	Total 6 units
	A171SHCPUN,A172SHCPUN	Max. 2 units	Total 2 units

*1: This applies to the following intelligent function unit types:
AD51H-S3, AJ71C22-S1, AJ71UC24, AJ71E71N-B2, AJ71E71N-B5, AJ71E71N-T, AJ71C23-S3, AD22-S1, AJ61BT11 (only in intelligent mode), A1SJ71UC24-R2 (PRF/R4), A1SJ71E71N-B2, A1SJ71E71N-B5, A1SJ71E71N-T, A1SD51S, A1SD21-S1, A1SJ61BT11 (only in intelligent mode)
*2: Only the A1SD51S intelligent function unit can be connected to the QCPU (Q mode).
*3: The AJ71QC24 (R2/R4) is not included in the total permissible number of unit connections.

12. When using the PLC CPU in a direct format

Note that a vacant I/O slot's input "x" input cannot be used when a direct I/O control mode is used for the connection target PLC CPU, with a 5m extension cable (GT15-AC50B, GT15-A1SC50NB), and with the first GOT connected to the main or extension base unit. This restriction does not apply when a "refresh" I/O control mode is used. At PLC CPU's equipped with an I/O control mode selector switch, set the switch to the "refresh" format.

Note Examples of a vacant I/O slot's "x" input usage
- When input "x" is assigned at the MELSECNET/10 network.
- When a vacant I/O slot's input "x" is turned ON/OFF from the computer link unit.
- When a vacant I/O slot's input "x" is turned ON/OFF by the GOT touch-switch function (bit SET/RST/alternate/momentary).

13. For connection to a Q4ARCPU redundant system

(1) For a BUS connection with a Q4ARCPU redundant system

Connect the GOT to the double system extension base unit (A68RB) at the Q4ARCPU redundant system's last stage. A version "B" or later redundant system extension base unit must be used. The redundant system extension base unit's version is indicated in the "DATE" column at the rated plate.

Note Q4ARCPU double system configuration precautions
GOT will not operate properly in the following system configurations.
- When GOT is BUS-connected to the BUS switching unit (A6RAF) of the double system main base unit (A32RB/A33RB).
- When GOT is BUS-connected to a version "A" redundant system extension base unit (A68RB).

(2) Power ON order for GOT and a Q4ARCPU redundant system

The power ON order for GOT and a Q4ARCPU redundant system should be as follows.
1) GOT power ON.
2) After the monitor screen displays at GOT, the Q4ARCPU redundant system power switches ON. As a "time-out" system alarm then displays, use the system information to reset the alarm.

Specification

General specifications

Item		Specification					
Operating ambient temperature	Display	0 to 50°C					
	Other than display	0 to 55°C					
Storage ambient temperature		-20 to 60°C					
Operating ambient humidity*1		10 to 90% RH, no condensing					
Storage ambient humidity*1		10 to 90% RH, no condensing					
Vibration resistance*2	Based on JIS B 3502, IEC61131-2		Frequency	Acceleration	Single amplitude	Sweep count	
		If intermittent vibration occurs	5 to 9Hz	—	3.5mm	10 times in each of X, Y, and Z directions	
			9 to 150Hz	9.8m/s²	—		
		If continuous vibration occurs	5 to 9Hz	—	1.75mm		
			9 to 150Hz	4.9m/s²	—		
Impact resistance		Based on JIS B 3502, IEC 61131-2 (147m/s², 3 times in X, Y and Z directions)					
Operating atmosphere		No corrosive gas					
Altitude*3		2000m or less					
Installation location		Inside the panel					
Overvoltage category*4		II or lower					
Contamination*5		2 or less					
Cooling method		Self cooling					

*1: Wet bulb temperature for STN display type is 39°C or lower.
*2: Refer to the Communication Unit User's Manual for vibration resistance specifications when using a MELSECNET/10 communication unit (GT15-75J71LP23-Z, GT15-75J71BR13-Z) or a CC-Link communication unit (GT15-75J61BT13-Z). (Communication units specs. are different from GOT specs.)
*3: Do not operate or store the GOT unit in pressurized environments where the pressure exceeds the 0m elevation atmospheric pressure, as this could result in abnormal operation.
*4: Assuming that the device is connected at some point between a public power distribution network and local system equipment. Category II applies to devices that are supplied with power from fixed equipment. The surge withstand voltage is 2500V for devices with ratings up to 300V.
*5: Index that indicates the level of foreign conductive matter in the operating environment of device. Contamination level 2 denotes contamination by non-conductive matter only, though momentary conductivity may occur due to occasional condensation.

Performance specifications

Item		Specification					
		GT1585-STBA	GT1575-STBA	GT1575-VTBA	GT1565-VTBA	GT1155-QSBD	GT1150-QLBD
Display	Type	TFT color display				STN color display	STN monochrome (black/white) display
	Screen size	12.1"	10.4"		8.4"	5.7"	
	Resolution	SVGA: 800 x 600 [dot]		VGA: 640 x 480 [dot]		QVGA: 320 x 240 [dot]	
	Display size	246 (W) x 184.5 (H) [mm]	211 (W) x 158 (H) [mm]		171 (W) x 128 (H) [mm]	115 (W) x 86 (H) [mm]	
	Number of display characters	For 16-dot standard font: 50 chars. x 37 lines (two bytes) For 12-dot standard font: 66 chars. x 50 lines (two bytes)		For 16-dot standard font: 40 chars. x 30 lines (two bytes) For 12-dot standard font: 53 chars. x 40 lines (two bytes)		For 16-dot standard font: 20 chars. x 15 lines (two bytes) For 12-dot standard font: 26 chars. x 20 lines (two bytes)	
	Display color	256 colors / 65536 colors *1				256 colors	16-tone black/white adjustment
	View angle	Right/left: 60°, Up: 40°, Down: 50°	Right/left: 50°, Up: 35°, Down: 45°	Right, left, up, down: 85°	Right/left: 65°, Up: 50°, Down: 60°	Right/left: 50°, Up: 50°, Down: 60°	Right/left: 45°, Up: 20°, Down: 40°
	Contrast adjustment	—				16-step adjustment	
	Intensity	350 [cd/m²] (8-step adjustment)	280 [cd/m²] (8-step adjustment)	380 [cd/m²] (8-step adjustment)		350 [cd/m²] (8-step adjustment)	220 [cd/m²] (8-step adjustment)
	Life *2	Approx. 50,000 hours (operating ambient temperature: 25°C)		Approx. 41,000 hours (operating ambient temperature: 25°C)		Approx. 50,000 hours (operating ambient temperature: 25°C)	
Backlight		Cold cathode fluorescent tube (replaceable only on GT15) with backlight OFF detection function, and selectable backlight OFF / screen save time					
	Life (time for display intensity to become 50% at operating ambient temperature of 25°C)	Approx. 40,000 hours or more				Approx. 75,000 hours or more	Approx. 54,000 hours or more
Touch panel	Number of touch keys	1900 keys per screen (38 lines x 50 columns matrix resistive type)		1200 keys per screen (30 lines x 40 columns matrix resistive type)		300 keys per screen (15 lines x 20 columns matrix resistive type)	
	Key size	Min. 16 x 16 [dots] (per key) (8 x 16 at final line only)		Min. 16 x 16 [dots] (per key)			
	No. of simultaneous touch points	Max. 2 points					
	Life	1,000,000 or more operations (pressing force of 0.98N or less)					
Memory*3	Internal memory	9M-byte Flash Memory (for project data and OS)				3M-byte Flash Memory (for project data and OS)	
	Life (number of writings)	100,000 writings					
Battery		GT15-BAT type lithium battery (optional)				GT11-50BAT type lithium battery	
	Backed up data	Clock and maintenance schedule notification data				Clock, alarm history, recipe data	
	Life	Approx. 5 years (operating ambient temperature: 25°C)					
Internal interface	RS-422	—				RS-422, 1ch Transmission speed: 115200, 57600, 38400, 19200, 9600, 4800 bps Connector shape: D-sub 9-pin (female) Application: Communication with PLC and other FA devices	
	RS-232	RS-232, 1ch Transmission speed: 115200, 57600, 38400, 19200, 9600, 4800 bps Connector shape: D-sub 9-pin (male) Application: Communication with PLC and other FA devices, communication with personal computer (for project data uploads & downloads, OS installation, FA transparent function)					
	USB	USB (Full Speed 12Mbps), device, 1ch Connector shape: Mini-B Application: communication with personal computer (for project data uploads & downloads, OS installation, FA transparent function)					
	CF card	Compact Flash slot: 1ch, Connector shape: TYPE I, Application: For data transmission and data saving					
	Optional function board	1ch for optional function board installation					
	High-resolution graphic board	1ch for high-resolution graphic board installation				—	
	Extension unit	2ch for communication unit installation				—	
Buzzer output		Single tone (tone length is adjustable)					
Human sensor		Detection distance : 1m	—				
Environmental protective structure		IP67f (JEM1030) *4					
External dimensions (without USB port cover)		316 (W) x 242 (H) x 52 (D) [mm]	303 (W) x 214 (H) x 49 (D) [mm]		241 (W) x 190 (H) x 52 (D) [mm]	164 (W) x 135 (H) x 56 (D) [mm]	
Panel cut dimensions		302 (W) x 228 (H) [mm]	289 (W) x 200 (H) [mm]		227 (W) x 176 (H) [mm]	153 (W) x 121 (H) [mm]	
Weight		2.6kg (excluding the mounting bracket)	2.3kg (excluding the mounting bracket)	2.2kg (excluding the mounting bracket)	1.8kg (excluding the mounting bracket)	0.7 kg (excluding the mounting bracket)	
Supported software	Drawing software	GT Designer2 Version 2.07H or later					
	Simulator function	GT Simulator2 Version 2.07H or later (GT15 only)					

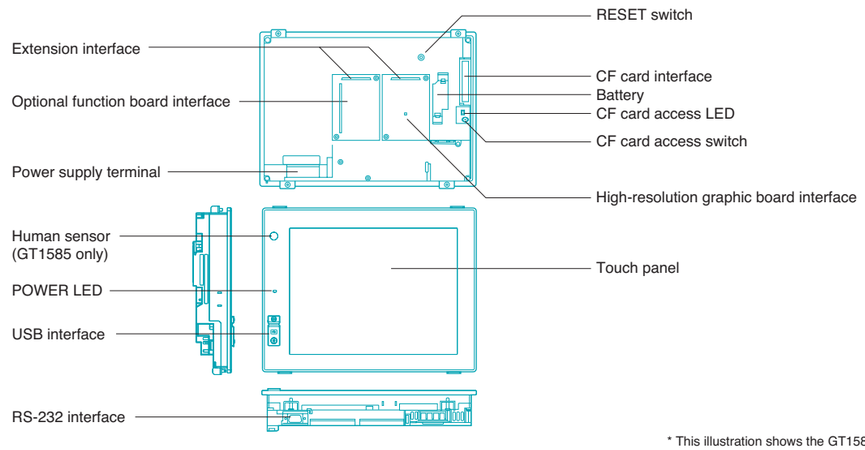
*1: 65,536 colors when high-resolution graphic board is installed.
*2: Using the GOT screen save / backlight OFF functions prevents screen burn-in and extends the backlight life.
*3: The internal memory is a ROM that permits new data overwriting without having to delete the existing data.
*4: The USB port conforms to the IP67f when the USB port cover is installed. However this does not guarantee protection in all user environments. When a USB cable is connected, the USB port does not conform to the IP67f rating.

Power supply specifications

Item	Specification					
	GT1585-STBA	GT1575-STBA	GT1575-VTBA	GT1565-VTBA	GT1155-QSBD	GT1150-QLBD
Input power supply voltage	100 to 240VAC (+10%, -15%)				24VDC (+10%, -15%) Ripple voltage 200mV or less	
Input frequency	50/60Hz ±5%				—	
Input maximum voltampere	90VA (at max. load)				—	
Fuse (Internal, not replaceable)	—				1.0A	
Power consumption	28W or less	26W or less			9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)
With backlight off	20W or less				4.32W or less (180mA/24VDC)	
Rush current	45A or less (4ms, at max. load)	40A or less (4ms at max. load)			15A or less (26.4VDC)	
Permissible instantaneous failure time	20ms (100VAC or more)				Within 5ms	
Noise resistance	Noise width 1 μs, and noise frequency 25 to 60 Hz, by noise simulation with noise voltage 1,500 Vp-p				Noise width 1 μs, and noise frequency 30 to 100 Hz, by noise simulation with noise voltage 1,000 Vp-p	
Dielectric Withstand Voltage	Apply 1500V AC to between AC external pins and ground for one minute.				500V AC between power supply terminal and ground for 1 minute	
Insulation resistance	10 MΩ with an insulation resistance tester				10MΩ or higher (using a 500VDC resistance meter) between power supply terminal and ground for 1 minute	
Applicable wire size	0.75 to 2 [mm2]					
Crimp terminal	Crimp terminal for M3 screw RAV1.25-3, V2-S3.3, V2-N3A, FV2-N3A				Crimp terminal for M3 screw RAV1.25-3, V2-N3A, FV2-N3A	
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m]					

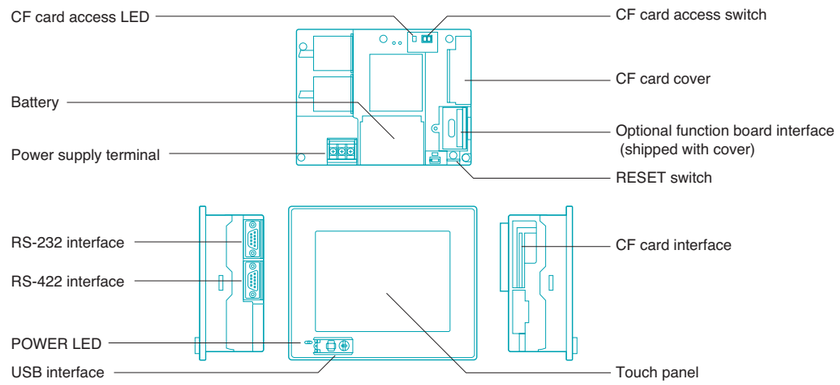
Component Names

GT15



* This illustration shows the GT1585-STBA.

GT11

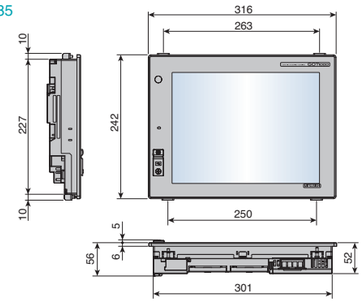


GOT main unit

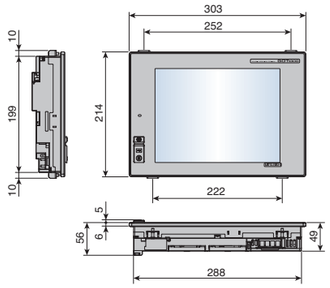
External dimensions

(Unit: mm)

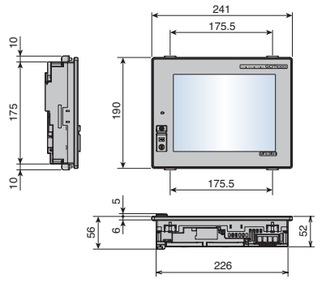
GT1585



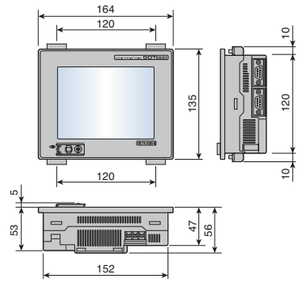
GT1575



GT1565



GT1155
GT1150

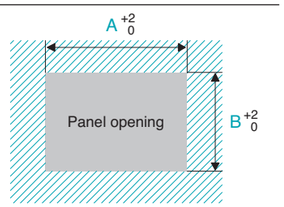


Panel cut dimensions

(Unit : mm)

Size	GOT main unit type	A	B
12.1" type	GT1585 *1	302	228
10.4" type	GT1575 *2	289	200
8.4" type	GT1565	227	176
5.7" type	GT1155 *3	153	121
5.7" type	GT1150 *3		

*1: Same dimensions as the A985GOT (-V).
*2: Same dimensions as the A975/970GOT (-B).
*3: Same dimensions as the A940GOT.



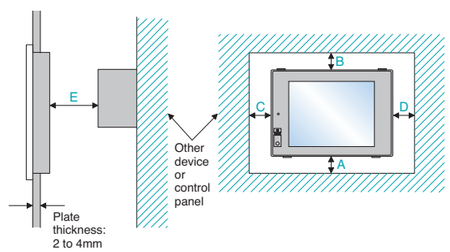
Product installation interval

When a GOT is installed, the spaces must be provided between other equipment as shown below.

●12.1" type / 10.4" type / 8.4" type (Unit: mm)

Item		GT1585	GT1575	GT1565
A	When only GOT or a BUS connection unit is installed	50 or more (14 or more)	50 or more (31 or more)	50 or more (36 or more)
	When an RS-422 converter is installed	51 or more	68 or more	73 or more
	When an Ethernet communication unit, a MELSECNET/10 communication unit (coaxial), or a CC-Link communication unit is installed	50 (10 or more)	50 (10 or more)	50 (10 or more)
	When a MELSECNET/10 communication unit (optical) is installed	50 (26 or more)	50 (43 or more)	50 (48 or more)
B		80 or more (20 or more)		
C, D		50 or more (20 or more)		
E		100 or more (20 or more)		

* Dimensions shown in parentheses apply when there are no devices nearby (contactor, etc.) which produce radiated noise or heat. Even with these dimensions, however, the ambient temperature must never exceed 55°C. Depending on the unit and cable being used, a cable length longer than the "A" dimension shown above may be required.



●5.7" type (Unit: mm)

Size	A, D	B	C		E
			Without CF Card	With CF Card	
5.7" type	50 or more	80 or more	50 or more	100 or more	100 or more

* The GOT ambient temperature must always be 55°C or less.

BUS connection cable

Cable model name	Cable length (L)	External dimensions
GT15-QC□B	0.6, 1.2, 3, 5, 10 m	Fig. 1
GT15-QC□BS	15, 20, 25, 30, 35 m	Fig. 1
GT15-C□NB	1.2, 3, 5 m	Fig. 2
GT15-AC□B	0.6, 1.2, 3, 5 m	Fig. 3
GT15-A370C□B-S1	1.2, 2.5 m	Fig. 4
GT15-A370C□B	1.2, 2.5 m	Fig. 5
GT15-A1SC□B	0.7, 1.2, 3, 5 m	Fig. 6
GT15-A1SC□NB	0.45, 0.7, 3, 5 m	Fig. 7
GT15-C□EXSS-1*1	10.6, 20.6, 30.6 m	Fig. 8 + Fig. 9
GT15-EXCNB	0.5 m	Fig. 8
GT15-C□BS	0.7, 1.2, 3, 5, 10, 20, 30 m	Fig. 9
GT15-J2C10B	1 m	Fig. 10

*1: The GT15-C□EXSS-1 is a set product consisting of the GT15-EXCNB and GT15-C□BS. (See Fig. A)

Fig. A GT15-EXCNB (Fig. 8) GT15-C□BS (Fig. 9)

(Unit: mm)

Fig. 1

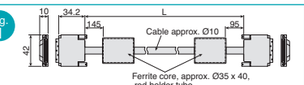


Fig. 2

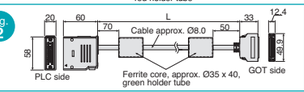


Fig. 3

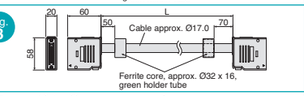


Fig. 4

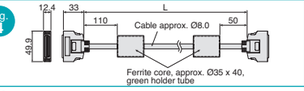


Fig. 5

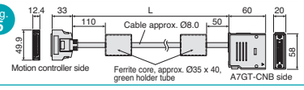


Fig. 6

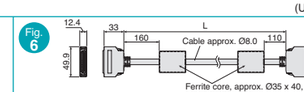


Fig. 7

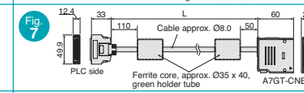


Fig. 8

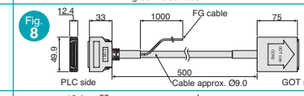


Fig. 9

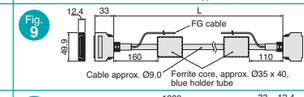
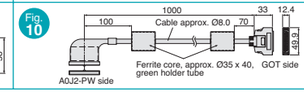


Fig. 10



RS-422 cable

Cable model name	Cable length (L)	External dimensions
GT01-C30R4-25P	3 m	Fig. 11
GT01-C□R4-25P	10, 20, 30 m	Fig. 12
GT01-C□R4-8P	1, 3, 10, 20, 30 m	Fig. 13

(Unit: mm)

Fig. 11

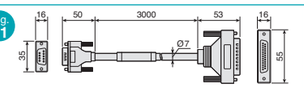


Fig. 12

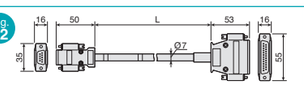


Fig. 13

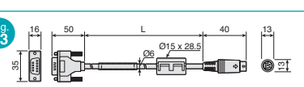


Fig. 14

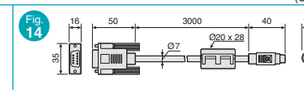


Fig. 15

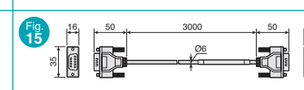
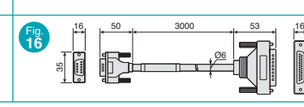


Fig. 16



RS-232 cable

Cable model name	Cable length	External dimensions
GT01-C30R2-6P	3 m	Fig. 14
GT01-C30R2-9S	3 m	Fig. 15
GT01-C30R2-25P	3 m	Fig. 16

Communication unit

Product name		Model name	External dimensions
BUS connection unit	Q-BUS (1ch) unit, slim model	GT15-75QBUSL	Fig. 17
	Q-BUS (2ch) unit, slim model	GT15-75QBUS2L	Fig. 18
	A-BUS (1ch) unit, slim model	GT15-75ABUSL	Fig. 19
	A-BUS (2ch) unit, slim model	GT15-75ABUS2L	Fig. 20
RS-422 converter	RS-232 →RS-422 converter (9-pin)	GT15-RS2T4-9P	Fig. 21
	RS-232 →RS-422 converter (25-pin)	GT15-RS2T4-25P	Fig. 22
BUS extension connector box		A9GT-QCNB	Fig. 23
BUS connector conversion box		A7GT-CNB	Fig. 24
MELSECNET/10 communication unit	Optical loop	GT15-75J71LP23-Z	Fig. 25
	Coaxial BUS	GT15-75J71BR13-Z	Fig. 26
CC-Link communication unit	Intelligent device station	GT15-75J61BT13-Z	Fig. 27
Ethernet communication unit		GT15-J71E71-100	Fig. 28

*1: "X" dimension when mounting GOT (Unit: mm)

GOT type	X
GT1585	13.5
GT1575	13.5
GT1565	15.5

(Unit: mm)

Fig. 17

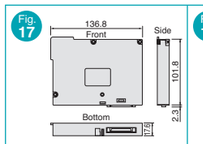


Fig. 18

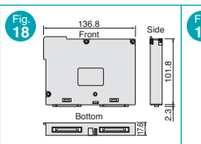


Fig. 19

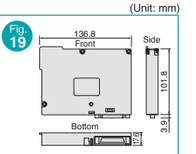


Fig. 20

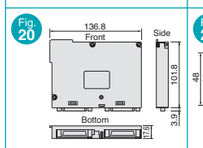


Fig. 21

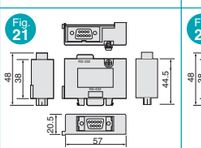


Fig. 22

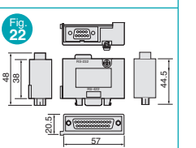


Fig. 23

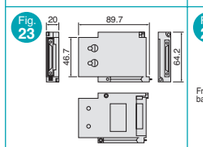


Fig. 24

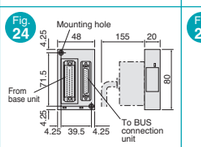


Fig. 25

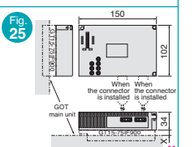


Fig. 26

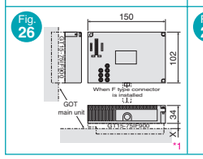


Fig. 27

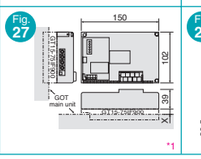
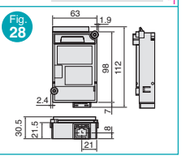


Fig. 28



List of products

Category		Function *1	Description	Optional Function Board *2	Extended/Optional Function OS Installation *2	Page	Model GT15□ GT1585-STBA SVGA 12.1"	GT1575-STBA SVGA 10.4"	GT1575-VTBA VGA 10.4"	GT1565-VTBA VGA 8.4"	GT11□ GT1155-QSBD QVGA 5.7"	GT1150-QLBD QVGA 5.7"
Connection configuration		Bus connection				P25 and following	●	●	●	●	—	—
		CPU direct connection					●	●	●	●	●	●
		Computer link connection					●	●	●	●	●	●
		MELSECNET/10 connection					●	●	●	●	—	—
		CC-Link (intelligent device station via G4) connection					●	●	●	●	● Via G4 only	● Via G4 only
		Ethernet connection					●	●	●	●	—	—
		Connection to other manufacturer's PLCs	For connectable PLCs, refer to the "Connectable Device List on page 24			P10, P25 and following	●	●	●	●	●	●
		Microcomputer connection	Communication protocol (15 type) compatible			P10, P25 and following	●	●	●	●	●	●
		Servo amplifier connection				P10, P25 and following	●	●	●	●	●	●
Hardware specs	User memory capacity	Standard memory capacity				P6	9MB	9MB	9MB	9MB	3MB	3MB
		Total memory capacity when using option (standard + option)	Optional expansion memory function board. Requires (GT15-QFNB□M) + CF card.	Required			Max. 57MB	Max. 57MB	Max. 57MB	Max. 57MB	—	—
	Display colors	65536 colors	High-resolution graphic board (GT15-VHNB) is required.			P15 P40	●	●	●	●	—	—
		256 colors					●	●	●	●	●	—
		Monochrome(black/white)16-step adjustment					—	—	—	—	—	●
	Resolution	800 x 600 dot					●	●	—	—	—	—
		640 x 480 dot					—	—	●	●	—	—
		320 x 240 dot					—	—	—	—	●	●
	Number of touch keys	Number of touch keys (line x row)					1900 (38 x 50)	1900 (38 x 50)	1200 (30 x 40)	1200 (30 x 40)	300 (15 x 20)	300 (15 x 20)
	Internal interface	RS-232 interface (1ch D-sub 9-pin (male))	For PLC and other FA device communication and personal computer communication (project data down loads/uploads, OS installation, FA transparent function)			P16 P40	●	●	●	●	●	●
		RS-422 interface (1ch D-sub 9-pin (female))	For PLC and other FA device communication				*3	*3	*3	*3	●	●
		USB (USB (Full Speed 12Mbps device 1ch (Mini-B))	For PC communication (project data downloads/uploads, OS installation, FA transparent function)				●	●	●	●	●	●
		CF card interface (Compact Flash slot 1ch (TYPE 1))	For data transmission and data saving				●	●	●	●	●	●
		Optional function board interface (1ch)	For optional function board installation (only for GT15 with expansion memory)				●	●	●	●	●	●
		Extension unit interface (2ch)	For communication unit installation				●	●	●	●	—	—
	Other	Clock function	GT15 requires a battery (GT15-BAT) to save clock data.				●	●	●	●	●	●
		Buzzer output	Monotone (tone is adjustable)			P40	●	●	●	●	●	●
		Human sensor					●	—	—	—	—	—
		Backlight OFF detection function	GT15 backlight is replaceable. GT1155-QSBD features a long-life backlight.				●	●	●	●	●	●
		Protection sheet	"IP67f" when equipped with USB IP67 rated cover (Does not conform to the IP671 standard when a USB cable is connected.)				●	●	●	●	●	●
Main unit functions		Boot OS installation	Via USB or RS-232, using CF card				●	●	●	●	●	●
		OS installation*4					●	●	●	●	●	●
		Project data downloads /uploads *5	Via Ethernet (GT15 only)*7, Via USB or RS-232, using CF card			P16	●	●	●	●	●	●
		Resource data uploads *6					●	●	●	●	● *6	● *6
		FA transparent function	Via USB or RS-232			P16	●	●	●	●	●	●
		Gateway function		Required	Required	P10	●	●	●	●	—	—
Screen design	Specs.	Base screen	Basic GOT display screen				●	●	●	●	●	●
		Overlap window display	Pop-up window				●	●	●	●	●	●
		Superimposed window display	Composite display windows on the base screen				●	●	●	●	●	●
		Supported image data format	BMP image data				●	●	●	●	●	●
			JPEG image data				●	●	●	●	—	—
			DXF data				●	●	●	●	●	●
		Standard font	6 x 8 dot, 12 dot (Gothic),16 dot (Gothic/Mincho)			P6	●	●	●	●	●	●
		High-quality font	12, 16 dot (Gothic / Mincho)				●	●	●	●	●	●
		TrueType font	24 to 128 dot (Gothic / Mincho)				●	●	●	●	●	●
		Windows ® font	8 to 128 dot				●	●	●	●	●	●
		Simplified [GB] / Mincho (GB2312)		Required	Required		●	●	●	●	—	—
		Part (object + figure) Layer function				P8	●	●	●	●	●	●

Category		Function *1	Description	Optional Function Board *2	Extended/Optional Function OS Installation *2	Page	Model GT15□ GT1585-STBA SVGA 12.1"	GT1575-STBA SVGA 10.4"	GT1575-VTBA VGA 10.4"	GT1565-VTBA VGA 8.4"	GT11□ GT1155-QSBD QVGA 5.7"	GT1150-QLBD QVGA 5.7"
Screen design	Common settings	Screen switching					●	●	●	●	●	●
		Station No. switching					●	●	●	●	—	—
		Multilingual support function	Multilingual support device switches the language of objects with comment groups.			P7 P15	●	●	●	●	—	—
		Password					●	●	●	●	●	●
		System information					●	●	●	●	●	●
		Connected device setting	Channel No. driver setting is required				●	●	●	●	●	●
		Boot logo	Displays the desired image (BMP) at GOT startup.			P6	●	●	●	●	●	●
	Object setting	Comment registration	1 basic comment per project*8			P7	●	●	●	●	●	●
			255 comment groups per project				●	●	●	●	—	—
		Component registration					●	●	●	●	●	●
		Data operation function					●	●	●	●	●	●
		Offset function					●	●	●	●	●	●
		Security function					●	●	●	●	●	●
		Lamp display					●	●	●	●	●	●
		Touch switch	ASCII inputs limited to 16 chars.			P8	●	●	●	●	●	●
		Numerical display/input					●	●	●	●	●	●
		Data list display					●	●	●	●	●	●
		ASCII display/input	Lower/higher bit display order is selectable.				●	●	●	●	●	●
		Clock display					●	●	●	●	●	●
		Comment display					●	●	●	●	●	●
		Advanced alarm observation/display	Advanced user alarm / advanced system alarm / advanced alarm popup window			P18	●	●	●	●	—	—
		Alarm list display	User alarm display / system alarm display				●	●	●	●	●	●
		Alarm history display					●	●	●	●	●	●
		Component display					●	●	●	●	●	●
		Component movement					●	●	●	●	●	●
		Panel meter display					●	●	●	●	●	●
		Level display					●	●	●	●	●	●
		Trend graph					●	●	●	●	●	●
		Line graph					●	●	●	●	●	●
		Bar graph					●	●	●	●	●	●
		Statistical graph					●	●	●	●	●	●
		Scatter graph					●	●	●	●	●	●
		Status monitor function					●	●	●	●	●	●
		Advanced recipe		Required	Required	P9	●	●	●	●	—	—
		Recipe function		Required	Required		●	●	●	●	●	●
		Time action function					●	●	●	●	●	●
		Hard copy function	File saved in CF card (BMP, JPEG) CF card is required				●	●	●	●	—	—
		Bar-code function			Required	P8	●	●	●	●	●	●
	Other	Screen call function					●	●	●	●	●	●
		Script function					●	●	●	●	—	—
Maintenance functions		Ladder monitor function	Use the GT15-QFNB (□M) for the Q/QnA ladder monitor function.	Required	Required	P21	●	●	●	●	—	—
		A-list edit function		Required	Required		●	●	●	●	●	●
		System monitor function			Required		●	●	●	●	●	●
		Maintenance notification function	Battery (GT15-BAT) is required	Required		P20	●	●	●	●	—	—
Software		GT Works2 Version2	For items shipped with the unit, see the "Device List" (page 47).				●	●	●	●	●	●
		GT Designer2 Version2	GOT1000 compatible drawing software			P12	●	●	●	●	●	●
		GT Simulator2 Version2	GOT1000 compatible simulation software			P14	●	●	●	●	—	—
		GT Converter2 Version2	Easy data convert function (improved conversion rate) Converts GP-PRO/PBCIIIC-Package03 to GT15, A900 data				●	●	●	●	—	—

*1: Function content varies according to the model.
*2: For details, see the "Notes for use" section on page 46.
*3: The RS-232 interface is used as an RS-422 interface by installing an RS-422 converter.
*4: "OS" refers to the basic functions, communication drivers, extended functions, and optional functions.
*5: "Project data" refers to user screen data (base screen, window screen), components, advanced recipes, comments, common settings, high-quality font, and the boot logo.
*6: "Resource data" refers to the alarm log files (advanced alarms, alarm history), advanced recipe files, recipe files, screen transition information files, and image files (hard copy). The GT11 supports only the alarm log file (alarm history).
*7: The GOT with basic functions installed must be equipped with an Ethernet communication unit.
*8: Only 16-dot fonts (standard / high-quality Mincho font) are available.

CF card & optional function board selection

When using the GT15

■When using optional functions & extended functions

In order to use the optional functions shown in "Table A", an optional function board or an optional expansion memory function board must be installed, regardless of the project data capacity and the available user data space. Depending on the functions used, the OS installation may reduce the available user data space.
Refer to "Table A" for the amount of user data space corresponding to the optional function OS and the extended function OS.
If there is insufficient user space available, an optional expansion memory function board should be selected.

■Select according to project data capacity

A CF card and an optional expansion memory function board are required in the cases where the project data capacity exceeds 9MB (9216KB). Project data should be downloaded to Drive "A" (CF card).

- Selecting a CF card
  Select a CF card that exceeds the project data capacity*.
- Selecting an optional expansion memory function board
  Select an optional expansion memory function board as follows: (Project data capacity) - (9MB) < Total amount of memory capacity*.

*: This is a general guideline.

When using the GT11

■When using optional functions & extended functions

Install an optional function board in order to use the "Table A" optional functions

[Table A]

Functions		Available user data space (KB) GT15	GT11
Optional functions *1	Maintenance notification function	*3	None
	Simplified Chinese [GB] Mincho font	1280	None
	Recipe	100	*4
	Advanced recipe	1241	None
	MELSEC-A ladder monitor	523	None
	MELSEC-Q/QnA ladder monitor*2	1082	None
	MELSEC-FX ladder monitor	592	None
	MELSEC-A list edit	1058	*4
	Gateway (server, client)	100	None
	Gateway (mail)	100	None
Extended functions	System monitor	746	*4
	Bar-code	84	*4

*1: GT15···Use the optional function board (GT15-QFNB/GT15-FNB) or the optional expansion memory function board (GT15-QFNB□M).
GT11···Use the optional function board (GT11-50FNB).
*2: The GT15FNB does not support the MELSEC-Q/QnA ladder monitor function. Use of this function requires the GT15-QFNB (□M)
*3: Installation of the optional function OS is not required.
*4: Requires installation of the optional function OS and extended function OS, but the user data area cannot be used.

Backward compatibility

For project data

■GT Designer → GT Designer2 compatibility*

Project data created in GT Designer can be used in GT Designer2.

■GOT900 series → GOT1000 series compatibility*

- Using data from the GOT-A900 series
  GOT900 series project data can be used at the GOT1000 series.
- Using data from the GOT-F900 series
  Data created in GT Designer and GT Designer2 can be used. Data must first be converted to GOT-A900 series data, and then to GOT1000 series data.

*: Some data and function items cannot be used (not compatible).

For BUS connection cable

■BUS connection cables

- The GOT900 series BUS connection cable cannot be used by the GOT1000 series.
- The GOT1000 series BUS connection cable cannot be used by the GOT900 series.

■RS-422 and RS-232 cables

- The GOT900 series RS-422 and RS-232 cables cannot be used by the GOT1000 series.
- The GOT1000 series RS-422 and RS-232 cables cannot be used by the GOT900 series.

Panel cut dimensions

■GOT900 series → GOT1000 series compatibility

- The A985GOT(-V) and the GT1585, the A975/970GOT(-B) and the GT1575, the F940GOT and the GT1155/1150, have the same panel cut dimensions. Therefore, it is not necessary to change the mounting holes when replacing an A985GOT(-V), A975/970GOT(-B), or F940GOT with a GOT1000 series unit.

GT Designer2 (English version) operating environment

Item		Description	
Personal computer		PC/AT compatible machine running Windows®	
OS		Microsoft® Windows® 98 Operating System (English, Chinese, Korean, German Versions) Microsoft® Windows® Millennium Edition Operating System (English, Chinese, Korean, German Versions) Microsoft® WindowsNT® Workstation 4.0 Operating System (English, Chinese, Korean, German Versions)*1 Microsoft® Windows® 2000 Professional Operating System (English, Chinese, Korean, German Versions)*1	Microsoft® Windows® XP Professional Operating System (English, Chinese, Korean, German Versions)*2 Microsoft® Windows® XP Home Edition Operating System (English, Chinese, Korean, German Versions)*2
CPU		Pentium 200MHz or higher	Pentium II 300MHz or higher
Required memory		64MB or more	128MB or more
Free hard disk space	For installation	300MB or more	
	For operation	100MB or more	
Disk drive		CD-ROM disk drive	
Display colors		High color (16 bit) or more	
Display		Resolution 800 x 600 dot or more	
Others		• Internet Explorer Ver. 5.0 or later must be installed. • Mouse, keyboard, printer, CD-ROM drive which are compatible with the above OS.	

*1: Administrator authority is required for installation.
*2: Administrator authority is required for installation and GT Designer2 operation. The following functions are not supported: "Application START in a "previous Windows® version compatibility", "remote desktop", "user account", and "desktop appearance".

GT Simulator2 (English version) operating environment

Item		Description	
Personal computer		PC/AT compatible machine running Windows®	
OS		Microsoft® Windows® 98 Operating System (English, Chinese, Korean, German Versions) Microsoft® Windows® Millennium Edition Operating System (English, Chinese, Korean, German Versions) Microsoft® WindowsNT® Workstation 4.0 Operating System (English, Chinese, Korean, German Versions)*2*3 Microsoft® Windows® 2000 Professional Operating System (English, Chinese, Korean, German Versions)*3	Microsoft® Windows® XP Professional Operating System (English, Chinese, Korean, German Versions)*3*4 Microsoft® Windows® XP Home Edition Operating System (English, Chinese, Korean, German Versions)*3*4
CPU		Pentium 200MHz or higher	Pentium II 300MHz or higher
Required memory		64MB or more	128MB or more
Free hard disk space*1	For installation (product only)	250MB or more (For product operation and manual reference: 400MB or more)	
	For operation	200MB or more	
Disk drive		CD-ROM disk drive	
Display colors		High color (16 bit) or more	
Display		Resolution 800 x 600 dot or more	
Software	For project data creation/editing	GT Designer2*5	
	When GX Simulator is used	• GX Simulator of the following version is required depending on CPU.	

PLC CPUs to be simulated	Software version
QCPU (A mode), ACPU or motion controller CPU (A series)	Version5 "A" Edition or later
QCPU (Q mode) (except Q00J/Q00/Q01CPU), QnACPU, FXCPU	Version5 "E" Edition or later
Q00J/Q00/Q01CPU	Version6.00A or later
Q12PHCPU, Q25PHCPU	Version6.10L or later
Q12PRHCPU, Q25PRHCPU	Version6.20W or later

*1: A separate available space is required when using GT Designer2, GX Developer, and GX Simulator.
*2: Use WindowsNT® Workstation 4.0 with Service Pack3 or later installed.
*3: Administrator authority is required to install GT Simulator2 in the following operating systems.
• WindowsNT® Workstation 4.0
• Windows® 2000 Professional
• Windows® XP Professional
• Windows® XP Home Edition
Moreover, administrator authority is required to use GT Simulator2 in the following operating systems.
• Windows® XP Professional
• Windows® XP Home Edition
*4: The following functions are not supported.
• "Compatibility mode", "user account", desktop appearance, and "remote desktop"
*5: Use a GT Designer2 that is included in the same GT Works as GT Simulator2.
*6: Use only same-language GT Simulator2, GX Developer, and GX Simulator versions.

Model Name Explanation

GT15 7 5 - S T B A

Code	Screen size
8	12.1"
7	10.4"
6	8.4"
5	5.7"

Code	Display color
5	256 colors or more
0	16-tone black/white adjustment

Code	Resolution
S	SVGA (800 x 600 dot)
V	VGA (640 x 480 dot)
Q	QVGA (320 x 240 dot)

Code	Display device
T	TFT color
S	STN color
L	STN monochrome

Code	Power supply specs
A	100 to 240V AC
D	24V DC

GT15	Full-specification model covering a broad range of applications to be used as stand-alone and network access control.
GT11	Stand-alone model with full of basic functions.

GOT main units

Model name			Screen size [resolution]	Display device	Display color	Power source	Memory size
GT15	GT1585	GT1585-STBA	12.1" SVGA [800 x 600 dots]	TFT color display	256 colors / 65,536 colors (optional)	100-240V AC	9MB
	GT1575	GT1575-STBA	10.4" SVGA [800 x 600 dots]				
		GT1575-VTBA	10.4" VGA [640 x 480 dots]				
	GT1565	GT1565-VTBA	8.4" VGA [640 x 480 dots]				
GT11	GT1155	GT1155-QSBD	5.7" QVGA [320 x 240 dots]	STN color display	256 colors	24V DC	3MB
	GT1150	GT1150-QLBD	5.7" QVGA [320 x 240 dots]	STN monochrome display	16-tone black/white adjustment		

Software

Software	Software Version	Included product: Drawing Software GT Designer2 Ver. 2	Included product: Simulation (NEW) GT Simulator2 Ver. 2	Included product: Easy data conversion GT Converter2 Ver. 2	Included product: SoftGOT GT SoftGOT2	Remarks
GT Works2 Version2	**GT-WORKS2-C1**	○	○	○	○ *1	English version
	SW2D5C-GTWK2-EV (Version upgrade)	Version upgrade software (upgrade GT Works2 to the latest version)				English version
License key for GT SoftGOT *1*2	A9GTSOFT-LKEY-P	DOS/V License key (for D-sub 25-pin and parallel port)				
License key FD for GT SoftGOT2 *1*2	SW5D5F-SGLKEY-E	License registration package for personal computer CPU unit				English version

*1: Soon to be supported by the GOT1000 Series.
*2: GT Soft GOT2 License key is required for every DOS/V computer, and GT SoftGOT2 license key FD is required for every personal computer CPU unit.

Manuals

Manual Name	Content	Catalog No.
GT15 User's Manual	General specification overview, parts and settings, external dimensions, mounting, wiring, optional interfaces	SH-080528ENG
GT11 User's Manual		JY997D17501A
GOT1000 Series Connection Manual	System configurations and procedure to create customized cables	SH-080532ENG
GOT1000 Series Extended/Option Functions Manual	Detailed Extended Functions information	SH-080544ENG
GOT1000 Series Gateway Function Manual	Detailed Gateway Information, including specifications, setting, and configurations	SH-080545ENG
GT Designer2 Version2 Basic Operation/Data Transfer Manual <For GOT1000 Series>	Basic software installation information, basic design techniques, and data transfer to a terminal	SH-080529ENG
GT Designer2 Version2 Screen Design Manual <For GOT1000 Series>	Programming manual, including instruction for objects, specifications	SH-080530ENG
GT Simulator2 Version2 Operation Manual	GT Simulator2 specifications and operating instructions	SH-080546ENG
GT Converter2 Version2 Operation Manual	GT Converter2 operating instructions	SH-080533ENG

Communication interface

Product name	Model name	Specification		Applicable model GT15	GT11
Bus connection unit	GT15-75QBUSL	Q-Bus (1ch) unit slim model for QCPU (Q-mode)	1 connector	○	—
	GT15-75QBUS2L	Q-Bus (2ch) unit slim model for QCPU (Q-mode)	2 connectors	○	—
	GT15-QBUS (Available soon)	Q-Bus (1ch) unit for QCPU (Q-mode)	1 connector	○	—
	GT15-QBUS2 (Available soon)	Q-Bus (2ch) unit for QCPU (Q-mode)	2 connectors	○	—
	GT15-75ABUSL	A-Bus (1ch) unit slim model for QnA/ACPU	1 connector	○	—
	GT15-75ABUS2L	A-Bus (2ch) unit slim model for QnA/ACPU	2 connectors	○	—
	GT15-ABUS (Available soon)	A-Bus (1ch) unit for QnA/ACPU	1 connector	○	—
	GT15-ABUS2 (Available soon)	A-Bus (2ch) unit for QnA/ACPU	2 connectors	○	—
RS-422 conversion unit	GT15-RS2T4-9P	RS-232 → RS-422 conversion unit	RS-422 connector 9-pin	○	—
	GT15-RS2T4-25P		RS-422 connector 25-pin	○	—
Ethernet communication unit	GT15-J71E71-100	Ethernet (100Base-TX/10Base-T) unit		○	—
MELSECNET/10 communication unit	GT15-75J71LP23-Z	Optical loop unit		○	—
	GT15-75J71BR13-Z	Coaxial bus unit		○	—
CC-Link communication unit	GT15-75J61BT13-Z	Intelligent device station unit		○	—

Options

Product name	Model name	Specification		Applicable model GT15	GT11
Backlight	GT15-80SLTT	Backlight	For 12.1" type TFT (SVGA)	○	—
	GT15-70SLTT		For 10.4" type TFT (SVGA)	○	—
	GT15-70VLTT		For 10.4" type TFT (VGA)	○	—
	GT15-60VLTT		For 8.4" type TFT (VGA)	○	—
Optional function board	GT15-FNB	Optional function board (A/FX ladder monitor)	(Without expansion memory)	○	—
	GT15-QFNB	Optional function board (Q/QnA/A/FX ladder monitor)	(Without expansion memory)	○	—
	GT15-QFNB16M		16MB expansion memory	○	—
	GT15-QFNB32M		32MB expansion memory	○	—
	GT15-QFNB48M		48MB expansion memory	○	—
	GT11-50FNB	Optional function board		—	○
High-resolution graphic board	GT15-VHNB	High-resolution graphic board for SVGA & VGA for 65536 color display		○	—
Protection sheet	GT15-80PSCB	Protection sheet for 12.1" type	Clear (Set of 5)	○	—
	GT15-80PSGB		Anti-glare (Set of 5)	○	—
	GT15-80PSCW		Clear with white frame (Set of 5)	○	—
	GT15-80PSGW		Anti-glare with white frame (Set of 5)	○	—
	GT15-70PSCB	Protection sheet for 10.4" type	Clear (Set of 5)	○	—
	GT15-70PSGB		Anti-glare (Set of 5)	○	—
	GT15-70PSCW		Clear with white frame (Set of 5)	○	—
	GT15-70PSGW		Anti-glare with white frame (Set of 5)	○	—
	GT15-60PSCB	Protection sheet for 8.4" type	Clear (Set of 5)	○	—
	GT15-60PSGB		Anti-glare (Set of 5)	○	—
	GT15-60PSCW		Clear with white frame (Set of 5)	○	—
	GT15-60PSGW		Anti-glare with white frame (Set of 5)	○	—
	GT11-50PSCB	Protection sheet for 5.7" type	Clear (Set of 5)	—	○
	GT11-50PSGB		Anti-glare (Set of 5)	—	○
	GT11-50PSCW		Clear with white frame (Set of 5)	—	○
	GT11-50PSGW		Anti-glare with white frame (Set of 5)	—	○
USB IP67f rated port cover	GT15-UCOV	IP67f rated port cover (for replacement) for unit front USB interface		○	—
	GT11-50UCOV			—	○
Stand	GT15-80STAND	Debugging stand for 12.1" type		○	—
	GT15-70STAND	Debugging stand for 8.4"/10.4" type		○	—
	A9GT-50STAND	Debugging stand for 5.7" type		—	○
CF card	GT05-MEM-16MC	16MB Flash ROM		○	○
	GT05-MEM-32MC	32MB Flash ROM		○	○
	GT05-MEM-64MC	64MB Flash ROM		○	○
	GT05-MEM-128MC	128MB Flash ROM		○	○
	GT05-MEM-256MC	256MB Flash ROM		○	○
Memory card adaptor	GT05-MEM-ADPC	CF card → memory card (TYPE II) conversion adaptor		○	○
Attachment	GT15-60ATT-96	Attachment for 8.4" type	A960GOT→ GT1565	○	—
	GT15-60ATT-97		A97□GOT→ GT1565	○	—
Battery	GT15-BAT	Data backup battery for clock and maintenance notification		○	—
	GT11-50BAT	Data backup battery for clock, alarm history, and recipes		—	○

Cables

Product name		Model name	Cable length	3rd party products*1	Specification	Applicable model GT15	GT11
Q bus connection cable (For QCPU (Q mode))	Q extension cable Inter-GOT connection cable	GT15-QC06B	0.6m	○	For connection between QCPU and GOT For connection between GOT and GOT	○	—
		GT15-QC12B	1.2m				
		GT15-QC30B	3m				
		GT15-QC50B	5m				
		GT15-QC100B	10m				
	Q long-distance connection cable Inter-GOT long-distance connection cable	GT15-QC150BS	15m	○	For long-distance (13.2m or more) connection between QCPU and GOT (A9GT-QCNB required) For connection between GOT and GOT	○	—
		GT15-QC200BS	20m				
		GT15-QC250BS	25m				
		GT15-QC300BS	30m				
		GT15-QC350BS	35m				
Bus extension connector box		A9GT-QCNB	—	—	Used for QCPU long-distance (13.2m or more) bus connection	○	—
A bus connection cable (For QnA/ACPU/ motion controller (A series))	Large CPU extension cable	GT15-C12NB	1.2m	○	For connection between QnA/ACPU/motion controller CPU (A series/extension base) and GOT	○	—
		GT15-C30NB	3m				
		GT15-C50NB	5m				
		GT15-AC06B	0.6m	○	For connection between QnA/ACPU/motion controller (A series/extension base) and A7GT-CNB	○	—
		GT15-AC12B	1.2m				
		GT15-AC30B	3m				
		GT15-AC50B	5m				
		GT15-A370C12B-S1	1.2m	○	For connection between motion controller (A series/main base) and GOT	○	—
		GT15-A370C25B-S1	2.5m				
		GT15-A370C12B	1.2m	○	For connection between motion controller (A series/main base) and A7GT-CNB	○	—
		GT15-A370C25B	2.5m				
	Small CPU extension cable	GT15-A1SC07B	0.7m	○	For connection between QnAS/AnSCPU/motion controller (A series) and GOT	○	—
		GT15-A1SC12B	1.2m				
		GT15-A1SC30B	3m				
		GT15-A1SC50B	5m				
	Small CPU extension cable	GT15-A1SC05NB	0.45m	○	For connection between QnAS/AnSCPU and A7GT-CNB	○	—
		GT15-A1SC07NB	0.7m				
		GT15-A1SC30NB	3m				
		GT15-A1SC50NB	5m				
	Small CPU long-distance connection cable	GT15-C100EXSS-1	10.6m	○	For connection between QnAS/AnSCPU/motion controller (A series) and GOT (Long distance of 13.2m or more) For connection between A7GT-CNB and GOT (Long distance of 13.2m or more)* Combination of GT15-EXCNB and GT15-C□BS	○	—
		GT15-C200EXSS-1	20.6m				
		GT15-C300EXSS-1	30.6m				
	Inter-GOT connection cable	GT15-C07BS	0.7m	○	For connection between GOT and GOT	○	—
		GT15-C12BS	1.2m				
		GT15-C30BS	3m				
		GT15-C50BS	5m				
	Inter-GOT long-distance connection cable	GT15-C100BS	10m	○	For connection between GOT and GOT	○	—
		GT15-C200BS	20m				
		GT15-C300BS	30m				
	A0J2HCPU connection cable	GT15-J2C10B	1m	○	For connection between A0J2HCPU power supply unit (A0J2-PW) and GOT	○	—
Bus connector conversion box		A7GT-CNB	—	—	Used for QnA/ACPU long-distance bus connection	○	—
Buffer circuit cable		GT15-EXCNB	0.5m	○	Can be used with GT15-C□BS as GT15-C□EXSS-1.	○	—
RS-422 cable	QCPU (Q mode)/QnA/ACPU direct connection cable Computer link connection cable	GT01-C30R4-25P	3m	—	For connection between QCPU (Q mode)/QnA/ACPU/motion controller (A series) and GOT, for connection between FA-CNV□CBL and GOT, for connection between serial communication unit (AJ71QC24(N)-R4) and GOT	○	○
		GT01-C100R4-25P	10m				
		GT01-C200R4-25P	20m				
		GT01-C300R4-25P	30m				
	FXCPU direct connection cable FX function extension board connection cable	GT01-C10R4-8P	1m	—	For connection between FXCPU (FX0S, FX0N, FX1S, FX1N, FX1NC FX2N, FX2NC, FX3UC) and GOT, for connection between FXCPU extension board (FX1N-422-BD, FX2N-422-BD, FX3U-422-BD) and GOT	○	○
		GT01-C30R4-8P	3m				
		GT01-C100R4-8P	10m				
		GT01-C200R4-8P	20m				
		GT01-C300R4-8P	30m				
RS-232 cable	QCPU direct connection cable	GT01-C30R2-6P	3m	—	For connection between QCPU and GOT	○	○
	Cable for FX function extension board connection cable, FX function extension adaptor connection, and data transmission	GT01-C30R2-9S	3m	—	For connection between FXCPU extension board (FX□N-232-BD, FX3U-232-BD) and GOT, for connection between FXCPU function extension adaptor (FX2NC-232ADP) and GOT, for connection between personal computer (drawing software) (D-sub 9-pin: female) and GOT (D-sub 9-pin: female)	○	○
	FX function extension adaptor connection	GT01-C30R2-25P	3m	—	For connection between FXCPU function extension adaptor (FX0N-232ADP) and GOT	○	○
USB cable	Cable for data transmission	GT09-C20USB-5P	2m	○	For connection between personal computer (drawing software) (USB) and GOT (USB Mini-B)	○	○

*1: Items listed above developed by Mitsubishi Electric System & Service Co., LTD., and sold through your local sales office.
Although not listed above, Mitsubishi also offers cables, etc., for connection to other brand PLC units. For details, please contact your local sales office.
For inquiries relating to products which conform to UL, cUL, and CE directives, please contact your sales office.

Memo

Memo

Mitsubishi Graphic Operation Terminal

Precautions for Choosing the Products

This catalog explains the typical features and functions of the GOTs and does not provide restrictions and other information on usage and module combinations. When choosing the products, always check the detailed specifications, restrictions, etc. of the products in the user's manuals. When using the products, always read the user's manuals of the products.
Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

⚠ For safe use

- To use the products given in this catalog properly, always read the "manuals" before starting to use them.
- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- This product has been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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